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The Textile and Apparel Industries

FAIRCHILD FACT FILE

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TEXTILE APPAREL INDUSTRIES

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THE TEXTILE/APPAREL INDUSTRIES

Current Trends

During the period from 1982 through 1988, the value of textile mill products, as expressed in constant 1982 dollars, advanced by 16.2% or an average 2.7% per annum. During the same period domestic apparel shipments moved up by 6.5% or at a 1.1% annual rate. By contrast, personal consumption expenditures for apparel at retail advanced each year to total 29% for an annual gain of 4.8%. A major reason for the sharp difference between the two indexes was caused by imports. The slightly better performance of the textile mill products index can be explained by the fact that the mills have been concentrating on home furnishings fabrics, a sector which has not been as deeply penetrated by imports.

Within the Textile/Apparel complex, producers of manmade fibers have outperformed the industry as a whole. The value of shipments, in current dollars, advanced 4.3% per annum, while the value of shipments of domestic apparel advanced by 2.1% (in current dollars) on average from 1982 to 1988.

The textile mill products industry has made major investments in new capital equipment with important results in productivity improvements, averaging 5.6% per year for the 1975-1985 period. Apparel producers also improved productivity, but at a lower--2.7% per annum-rate. This compares with an increase in productivity of 2.7% per annum for all manufacturing.

During the 1982-1988 period, the number of spindles and looms decreased each year but output increased substantially, as more productive equipment was installed. The textile mill products industry is primarily located in the Southeastern states, a situation which has not changed since 1955. While the largest apparel producing states continue to be New York and California, a growing portion of the production has been moving to the South. Although the original impetus for the relocation of the textile and apparel industries to the South was lower wage rates, Bureau of Labor studies show that today there is no significant difference in Southern wage rates as compared with other sections of the U.S. Thus the desirability of the South as an area for textile and apparel production is today based on a trained labor force and the supporting infastructure.

Studies made by the United State International Trade Commission on the competitive situation between the United States and the leading exporting countries show that strong economic advantages favor the exporters. This particularly applies to Mainland China, Korea, Taiwan and Italy. Hong Kong is considered to have peaked as an exporter and Japan has hardly been competitive for years. The dependence of the Asiatic countries, especially Mainland China, on textile and apparel exports is very great and it is likely that imports will grow. A disturbing aspect of the international competitive situation is the fact that the United States is no longer an important producer of textile machinery. The bulk of the new equipment comes from Europe and Japan.

Current Trends (continued)

During the years 1986-1988, there were major upheavals involving industry concentration. In the area of manmade fiber production, the Hoechst-Celanese merger took place; American Enka was absorbed into BASF; and, Eastman Chemical greatly reduced its polyester capacity. In textile manufacturing, Burlington and Stevens disappeared as publicly owned companies. West Point/ Pepperell was taken over by Fruit-of-the-Loom with the likelihood that certain divisions will be sold to retire debt. In apparel manufacturing, too, major apparel conglomerates have disappeared or been reorganized.

Operating results and the profitability of textile/apparel companies have also been affected by major changes. In the manmade fiber sector, reductions in capacity have resulted in improved profits. Textile mill profits have also held up reasonably well, despite imports. One favorable development has been a substantial increase in yardage going into 807 programs. In addition, leading mills have been concentrating on home furnishings textiles which have been less affected by imports. Apparel manufacturing is a mixed situation as to profits. Many of the largest companies are sourcing much of their production off-shore so that the industry is assuming an international character.

The outlook for fiber consumption is hard to forecast because of changing price relationships between cotton, polyester and wool. A large cotton carryover and declining world prices increases the possibility that the domestic price of cotton will be lowered in the future. Polyester prices have moved up because of rising costs for intermediates and a shortage of capacity. In early 1989, polyester staple is well above cotton and the spread may widen. Wool prices have been at a historically high level, causing many wool system mills to produce more poly/wool blends. Price instability by itself presents problems for mills because of the increased risk of losses on inventories.

Within the textile mill industry, the production of spun yarn has been growing since 1982 because of growth in consumption of circular knit fabrics. On the other hand, textured yarn production has been a problem area because of the unpopularity of double-knits.

Production levels in most sectors of the textile mill and fiber industries have been at or near capacity. In both mill and manmade fiber production, capacity utilization has been in the 90% range for the 1986 to 1988 period. Apparel manufacturing has been the only weak sector. The production level in 1988 was only 6.2% over 1984. Dyeing and finishing have also been flat or down. Circular knit textiles have been quite strong during the 1982 to 1987 period, with poundage produced up by 30.6%. Nonwovens have also made substantial progress with total volume now approaching the two billion dollar mark.

Producer prices of most textile and apparel products have advanced by only small amounts, averaging an increase of only 7% over 1982. The reason has been competition from imports. However, the import price index has moved up sharply, narrowing the spread between imports and domestic production. This reflects the decline in the value of the dollar.

GENERAL INDUSTRY STATISTICS

The table below gives a quick picture of recent trends and the outlook for the textile and apparel industries:

The Textile & Apparel Industries: Trends & Forecasts
(In millions of dollars except as noted)

	1988(e)	1987(e)	1986	1985	% Change* 1981/86
Textile Mill Products Industry					
Value of shipments (current $)	$59,808	$57,674	$55,349	$53,276	2.0%
Value of shipments (1982$)	55,215	54,560	52,907	51,214	0.9
Total employment (000)	670	664	644	658	- 3.8
Production workers (000)	579	574	555	565	- 3.9
Apparel & Allied Products					
Value of shipments (current $)	$63,258	$60,942	$57,918	$56,993	3.1
Value of shipments (1982$)	56,867	56,361	54,681	54,440	0.9
Total employment (000)	1,048	1,045	1,016	1,059	- 4.1
Production workers (000)	889	886	862	904	- 4.4

(e) estimated
*Percent change compounded annually.

Source: U.S. Department of Commerce, International Trade Administration: 1989 U.S. Industrial Outlook

Trends: 1978-1988

The table shows that although the apparent dollar volume advanced in both industries, when viewed in deflated dollars, the situation was flat. Textiles fared better than apparel. The situation can further be put in perspective by comparing the constant value of textile and apparel industry shipments with the personal consumption expenditures at retail for apparel.

Index of the Constant Value of the Textile and Apparel Industry Shipments Compared with Personal Consumption Expenditures at Retail
(Value in 1982=100)

Year	Textile Mill Products	Apparel & Other Textile Products	Personal Consumption Expenditures-Apparel
1978	113.0	102.7	86
1979	114.1	98.0	89
1980	109.5	97.4	91
1981	106.3	97.7	98
1982	100.0	100.0	100
1983	110.8	102.4	107
1984	111.9	104.2	115
1985	107.8	102.0	118
1986	111.3	102.4	127
1987(e)	114.8	105.6	128
1988(e)	116.2	106.5	129

(e) estimated

Source: Based on U.S. Bureau of the Census and International Trade Administration Reports

GENERAL INDUSTRY STATISTICS

Trends: 1978-1988 (continued)

The International Trade Administration publishes annual performance and forecast statistics for segments of the textile-apparel complex. Trends in industry shipments and miscellaneous receipts were reported as follows, on a constant dollar basis:

Reported Industry Segments	Value of Industry Shipments: Percent Change (Constant 1982$) Compound Annual Change 1972-1986	1981-1986	Annual Change 1986/87(e)	1987/88(e)
Textile industry*	0.4%	- 0.9%	- 3.1%	1.2%
Manmade fibers				
Cellulosic	-1.4	- 6.4	7.3	1.2
Noncellulosic (organic)	4.2	1.3	7.3	1.2
Yarn mills, except wool	1.5	4.4	7.6	--
Wool yarn mills	-3.7	1.8	- 5.9	--
Knit fabric mills	-1.5	- 2.3	4.6	- 5.0
Weaving mills, total	0.2	- 1.3	4.3	1.4
Cotton fabrics	-2.9	- 2.8	4.0	- 4.4
Manmade fabrics	1.9	- 0.7	4.4	4.0
Wool fabrics (incl. finishing)	0.1	- 1.6	5.0	- 4.0
Apparel & other textile products	0.7	0.9	3.1	0.9
Men's & boys' wear	-1.2	- 1.3	--	--
Suits & coats	-3.2	- 1.7	- 0.1	- 0.4
Shirts/nightwear	-0.8	- 1.6	5.6	1.2
Trousers	-3.3	- 2.3	--	--
Work clothes	1.5	- 0.2	3.2	1.5
Women's, misses' outerwear	1.4	0.4	--	--
Blouses	2.9	0.5	- 3.2	1.1
Dresses	-0.3	2.4	- 2.2	- 0.6
Suits, coats	3.1	- 1.2	--	--
Children's, infants' outerwear	0.5	1.2	- 1.7	1.8
Dresses, blouses	1.7	2.4	- 2.2	1.9
Coats, suits	-6.2	- 8.4	- 2.7	0.9

(e) estimated

* Not including manmade fibers (which are classified in the Chemical Industry).

Source: U.S. Department of Commerce,
International Trade Administration:
1989 U.S. Industrial Outlook

GENERAL INDUSTRY STATISTICS

Every five years, the Census Bureau, U.S. Department of Commerce, compiles a complete census of all manufacturing plants in the nation. Participation in the reporting is required by law. This is the most detailed source available on industry statistics. The most recent census covers the year 1987 but final reports will not be published until late 1989. During intercensal periods, the Bureau compiles annual surveys from a representative sample of manufacturers (as opposed to a complete census). This system provides a continuous series of basic industry statistics. Results of the 1986 annual survey were published in July of 1988.

General Statistics by Major Industry Classification
(Dollar figures in millions)

Industry Classification	1986	1985(r)	1982	% Change 1986/82
Man-made Fiber Producers:				
CELLULOSIC MAN-MADE FIBERS (SIC 2823*)				
Number of companies	na	na	14	--
Number of establishments (plants)**	18#	18#	18	--
Number with 20 or more employees	10	9	9	11.1%
All employees (thous.)	12.0	12.1	14.2	- 15.5
Production workers (thous.)	9.0	9.0	10.8	- 16.7
Total payroll	$ 314.4	$ 311.3	$ 291.0	8.0
Value added by manufacture***	$ 615.7	$ 390.2	$ 428.7	43.6
Cost of materials	$ 713.2	$ 744.7	$ 806.8	- 11.6
Value of industry shipments****	$1,321.8	$1,148.1	$1,239.9	6.6
New capital expenditures	$ 54.9	$ 43.3	$ 88.4	- 37.9
ORGANIC FIBERS, NONCELLULOSIC (SIC 2824*)				
Number of companies	na	na	44	--
Number of establishments (plants)**	76#	77#	70	8.6%
Number with 20 or more employees	67	65	57	17.5
All employees (thous.)	48.0	50.9	60.2	- 20.3
Production workers (thous.)	35.7	37.0	43.1	- 17.2
Total payroll	$1,397.8	$1,408.7	$1,382.0	1.1
Value added by manufacture***	$4,287.4	$3,851.0	$3,317.9	29.2
Cost of materials	$5,371.1	$5,349.1	$4,973.4	8.0
Value of industry shipments****	$9,676.7	$9,283.7	$8,262.7	17.1
New capital expenditures	$ 461.9	$ 354.3	$ 442.9	4.3

(continued)

General Statistics by Major Industry Classification
(Dollar figures in millions)
(continued)

Industry Classification	1986	1985(r)	1982	% Change 1986/82
TEXTILE MILL PRODUCTS INDUSTRY (SIC 22*)				
Number of companies	na	na	5,376	--
Number of establishments (mills)**	6,152#	6,221#	6,630	- 7.2%
Number with 20 or more employees	3,515	3,516	3,663	- 4.0
All employees (thous.)	644.3	658.4	717.4	- 10.2
Production workers (thous.)	554.7	565.3	442.9	- 25.2
Total payroll	$10,305.8	$ 9,967.1	$ 9,046.1	- 13.9
Value added by manufacture***	$22,232.3	$20,693.3	$18,550.0	19.8
Cost of materials	$33,012.5	$32,258.3	$28,713.4	15.0
Value of industry shipments****	$55,348.5	$53,276.5	$47,515.4	16.5
New capital expenditures	$ 1,598.3	$ 1,863.3	$ 1,579.0	1.2
APPAREL & OTHER TEXTILE PRODUCTS (SIC 23*)				
Number of companies	na	na	22,018	--
Number of establishments (plants)**	22,525	23,237	24,391	- 7.6%
Number with 20 or more employees	9,594	9,877	10,907	- 12.0
All employees (thous.)	1,016	1,059	1,189.0	- 14.5
Production workers (thous.)	862	904	1,009.7	- 14.6
Total payroll	$12,471	$12,471	$12,128.8	2.8
Value added by manufacture***	$28,451	$27,728	$26,060.5	9.2
Cost of materials	$29,492	$29,130	$27,087.8	8.9
Value of industry shipments****	$57,918	$56,993	$53,387.9	8.5
New capital expenditures	$ 683	$ 697	$ 654	4.4

(r) revised
na not available
The source for 1986 and 1985 number of establishments is (the) 1986 County Business Patterns, U.S. Bureau of the Census.

* Industry definitions (Standard Industrial Classifications (1972), Office of Management and Budget):

CELLULOSIC MAN-MADE FIBERS (SIC 2823) and ORGANIC FIBERS, NONCELLULOSIC (SIC 2824) are each a part of the Chemical & Allied Products Industry (SIC 28). Industry figures for textile glass fibers are not separately reported, but are included in data on pressed and blown glass and glassware. Manufacturers of cellulosic fibers often produce noncellulosics as a secondary product, but the reverse is not a general practice.

(footnotes continued)

(footnotes continued from previous page)

TEXTILE MILL PRODUCTS INDUSTRY (SIC 22): Includes mills engaged in any of the following operations: preparation of fiber and manufacture of yarn, thread, braids, twine, cordage; manufacture of knit and woven fabrics and of carpets and rugs from yarn; dyeing and finishing operations; coating, waterproofing, special fabric treatments; the integrated manufacture of knit apparel and other finished articles from yarn; the manufacture of felt goods, lace, non-woven fabrics and miscellaneous textiles.

APPAREL & OTHER TEXTILE PRODUCTS (SIC 23)--the cutting-up and needle trades: Includes plants producing clothing and other fabricated products by cutting and sewing purchased woven or knit textile fabrics and related materials (leather, plastics, fur, etc.). Besides apparel, the industry includes manufacturers of household textiles, canvas products and other fabricated textiles. Non-apparel products accounted for $5,799 million in industry shipments in 1982. Note that knit apparel made in knitting mills, are classified in SIC 22. Also note: the apparel industry classification does not include gloves, leather apparel, furs, handbags, jewelry or other accessories such as eyewear.

** Covers manufacturing establishments only, and each location is separately counted. Not included are separate auxiliary locations serving the plants (i.e. administrative offices, purchasing offices, sales promotion offices, etc.).

*** The value added by manufacture is derived by subtracting the cost of materials, supplies, energy, and contract work from the value of shipments of products manufactured plus receipts for services rendered. The result of this calculation is adjusted upward for the addition of value added by merchandising operations. Inventory value adjustments are also made.

Value added avoids the duplication in the value of shipments figures which results from the use of products of some plants as materials by others. It is, therefore, the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

**** Value of industry shipments covers received or receivable net selling values, f.o.b. plant after discounts and allowances, and excluding freight charges and excise taxes. Included are receipts from products made from materials owned by the plant as well as receipts for contract work, products bought and resold without further processing, and miscellaneous services. It includes both primary products (which determine the plant's SIC classification) and secondary products. The value of a specific product category, including output of primary and of secondary producers, is covered in the section on PRODUCT SHIPMENTS.

Source: U.S. Bureau of the Census:
1982 Census of Manufactures,
1985, 1986 Annual Survey of Manufactures M86(AS)-1

GENERAL INDUSTRY STATISTICS

The complete census is the basic source of information on manufacturers within the major industry classifications. The latest fully published census, covered the year 1982. A major census was taken in 1987, and although preliminary reports are due to be released in the late Spring/Summer of 1989 (final reports to be issued about six months later) some advance estimates for the textile and apparel industries have been made and are stated below.

1987 CENSUS OF MANUFACTURES
(Advance Estimates)
(Dollar figures in millions)

	1987	1982	% Change 1987/82
Textile Mill Products			
Total employment (thous.)	690	717	- 3.8
Production workers (thous.)	590	616	- 4.2
Production payroll	$ 8,831	$ 6,936	27.4
Value added by manufacture	$26,592	$18,550	43.3
Cost of materials	$37,110	$28,713	29.2
Value of shipments	$63,390	$47,515	33.4
Apparel & Other Products			
Total employment (thous.)	1,077	1,189	- 9.4
Production workers (thous.)	904	1,010	-11.7
Production payroll	$ 9,846	$ 8,832	11.5
Value added by manufacture	$33,127	$26,061	27.1
Cost of materials	$33,183	$27,088	22.5
Value of shipments	$65,827	$53,388	23.3

Source: U.S. Bureau of the Census:
1987 Census of Manufactures, Advance Estimates

The following table draws on the latest reports, with earlier year comparisons, for selected important measures of activity among manufacturers who operate in the textile/apparel complex.

GENERAL INDUSTRY STATISTICS

Industry Profile

Selected Industry Group Statistics: 1982, 1986
(Dollar figures in millions)

	No of. Plants/Mills		Value Added By Manufacture		Value of Shipments	
	1986	1982	1986	1982	1986	1982
Fiber/textile/apparel industries	*	31,109	*	$51,357	*	*
Man-made fibers industry	94	88	4,903	3,747	$10,999	$9,503
Cellulosic manmade fibers	18	18	616	429	1,322	1,240
Organic fibers, noncellulosic	76	70	4,287	3,318	9,677	8,263
Textile mill products industry	6,152	6,630	22,232	18,550	55,348	47,515
Weaving mills (broad woven fabrics)	791	923	6,252	5,475	13,635	12,926
Cotton	222	269	2,116	1,638	4,155	3,972
Manmade fiber, silk	456	523	3,777	3,489	8,665	8,191
Wool, incl. finishing mills	113	131	372	349	815	763
Narrow fabric mills	262	281	594	465	1,040	852
Knitting mills	2,138	2,334	5,494	4,985	12,203	10,986
Women's hosiery, except socks	164	206	953	777	1,682	1,411
Hosiery, n.e.c.	372	420	737	617	1,619	1,443
Knit outerwear mills	875	923	1,695	1,705	3,447	3,182
Circular knit fabric mills	307	422	927	850	2,562	2,539
Warp knit fabric mills	162	207	542	534	1,458	1,466
Knitting mills, n.e.c.	69	72	79	55	157	115
Textile finishing, except wool	658	753	1,887	1,590	5,914	4,972
Finishing plants: cotton	248	275	294	256	874	754
Finishing plants: manmade fiber	241	296	1,270	999	4,132	3,186
Finishing plants: n.e.c.	168	182	323	335	908	1,032
Floor covering mills	457	505	2,486	1,712	8,672	5,808
Woven	57	60	186	83	382	218
Tufted	311	366	2,197	1,585	8,051	7,505
Other	77	79	na	44	na	150
Yarn & thread mills	631	714	3,014	2,318	8,404	7,036
Yarn mills, except wool	331	377	2,066	1,508	5,437	4,328
Throwing & winding mills	149	189	606	527	2,139	1,945
Wool yarn mills	76	73	74	68	228	185
Thread mills	65	75	268	215	600	579

(continued)

Industry Profile (continued)

Selected Industry Group Statistics: 1982, 1986
(Dollar figures in millions)
(continued)

	No of. Plants/Mills		Value Added By Manufacture		Value of Shipments	
	1986	1982	1986	1982	1986	1982
Miscellaneous textiles						
Felt goods (except woven felts, hats)	38	45	287	150	439	250
Lace goods	49	65	47	46	76	72
Paddings, upholstery filling	92	93	176	129	348	284
Proeessed textile waste	87	102	126	98	320	297
Coated fabrics	179	198	458	435	1,172	1,115
Tire cord & fabric	20	21	352	290	1,008	982
Nonwoven fabrics	113	132	702	544	1,479	1,279
Cordage & twine	164	181	226	181	413	359
Other textile goods	189	283	120	130	225	298
Apparel & other textile products, total	na	24,391	28,451	26,060	57,919	53,388
Nonapparel textile products	na	6,611	5,754	4,498	13,642	10,281

* not additive
na not available
n.e.c. not elsewhere classified

Source: U.S. Bureau of the Census:
1982 Census of Manufactures,
1986 Annual of Survey of Manufactures

Specified Apparel & Textile Product Plants & Value of Industry Shipments: 1984, 1986

	Plants/Mills: 1986		Industry Shipments* (millions of $)		
	Total Number	With 100 or More Employees	1986	1984	% Change 1986/84
Apparel & other textile products**	22,525	2,844	$57,919	$57,578	0.6%
Men's & boys':					
Suits, coats	386	154	3,242	3,209	1.0
Furnishings, other clothing	2,171	895	13,697	13,804	- 0.8
Women's & misses':					
Outerwear	7,671	822	18,115	18,053	- 0.3
Women's & children's:					
Underwear, foundations, etc.	626	243	3,533	3,638	- 2.9
Children's outerwear	815	178	2,725	2,695	1.1

(continued)

GENERAL INDUSTRY STATISTICS

Industry Profile (continued)

Specified Apparel & Textile Product Plants & Value of Industry Shipments: 1984, 1986
(continued)

	Plants/Mills: 1986		Industry Shipments* (millions of $)		
	Total Number	With 100 or More Employees	1986	1984	% Change 1986/84
Fur goods	406	--	360	398	- 9.5%
Miscellaneous apparel & accessories	968	104	2,000	2,202	- 9.2
Miscellaneous fabricated textile products (home furnishings, etc.)	6,304	379	13,642	12,642	7.9

* Includes both primary and secondary products made within the industry as well as miscellaneous receipts for contract work, etc. The value of shipments of specific products by all producers, regardless of their industry classification is covered in the section on PRODUCT SHIPMENTS.

**Includes products not separately listed.

Source: U.S. Bureau of the Census:
1984, 1986 Annual Survey of Manufactures,
Statistics for Industry Groups and Industries M86(AS)-1,
1986 County Business Patterns, U.S. (CBP 86-1)

New Capital Expenditures/Productivity Improvements/New Technologies

Restructuring and modernization have resulted in productivity improvements by generating increased output from fewer plants and fewer employees. Productivity improvement in the textile mill industry is the highest of all U.S. manufacturing industries. In the 1975-1985 period, the textile industry averaged a 5.6% growth rate in productivity vs. a 2.4% growth rate for all manufacturing. The rate in the apparel industry was 2.7%.

U.S. textile industry productivity surpasses productivity per employee among the major industrialized nations of the world, according to a 1985 European Economic Community study, due to the modernization and automation of production. For example, the widespread adoption of open-end spinning by U.S. mills has increased production while reducing floor space and overhead requirements. However, many smaller firms with lower levels of profitability and smaller cash reserves have often been unable to maintain a satisfactory pace of modernization. Some of these firms have been unable to survive.

GENERAL INDUSTRY STATISTICS

New Capital Expenditures/Productivity Improvements/New Technologies
(continued)

In the apparel industry, the rate of productivity improvements has been lower, although important improvements have been taking place in computerized cutting and the automation of various operations, such as making pocketings. There has also been great stress on materials handling flow in support of "quick response" programs. However, apparel manufacturing remains, to a great extent, a labor intensive industry which has suffered from heavy imports from low wage level countries.

New Capital Expenditures & Productivity

Year	Textile Mill Products New Capital Expenditures (millions of $)	Productivity Index (1977=100) Textile Mill Products	Apparel Products
1975	$ 860	82.1	95.8
1980	1,540	110.2	112.6
1981	1,660	113.0	114.4
1982*	1,460	122.8	117.9
1983	1,550	129.5	118.0
1984	1,920	131.0	118.4
1985	1,780	131.8	120.4
1986	1,670	141.2	123.0
1987	1,950	136.9	132.0
1988 (3Q's) (p)	2,025		

* In 1982, according to the Census Bureau, the fiber/textile/apparel complex spent a total of $4.4 billion for new machinery and equipment. Most of this--an estimated 52%--went to foreign suppliers.

(p) preliminary

Source: Special Report, Congressional Office of Technology Assessment: The U.S. Textile & Apparel Industry (September 1988)

Industry Capacity

The number of spindles and looms in place has declined steadily since 1982. Spindles in place were down by 22.0%; and in operation, are off by 18.2%. Looms in place have also declined each year but to an important degree, this represents a switch to shuttleless looms, while older shuttle looms are being withdrawn from service. Despite the decline in capacity, total production of broad woven goods has held steady, as shown in the following table.

GENERAL INDUSTRY STATISTICS

Industry Capacity (continued)

Spindles, Looms and Production of Broad Woven Goods: 1982-1988

	1982	1983	1984	1985	1986	1987	1988
Total Spindles	16,086	15,640	14,527	13,706	13,366	12,868	12,459
Active spindles	14,179	14,243	13,550	12,672	12,104	11,776	11,550
% Active	88%	91%	93.3%	92.5%	90.6%	91.5%	92.7%
Total Looms (thous.)	213.4	199.2	183.3	156.6	141.3	137.9	134.7
Shuttle looms (thous.)	168.0	148.5	123.8	93.8	79.6	73.5	69.9
Shuttleless (thous.)	45.4	50.7	59.4	62.8	61.6	64.4	64.9
Production							
Billions sq. yds.	13.7	15.8	16.0	14.8	15.3	16.1	na

na not available

Source(s): ATMI Textile Hi-lights (published quarterly)
and
Consumer Industrial Report: Broadwoven Fabrics MQ22T(88)

The reduction in total capacity is a reflection of plant closings. Surveys made by the American Textile Manufacturers Institute have shown that since 1982, approximately 300 plants have closed. However, total mill employment has remained steady at around 725.9 thousand persons, according to the Bureau of Labor Statistics. Furthermore mill production has grown slightly from year to year because of improved technology and equipment.

The Federal Reserve Board measures capacity utilization in selected industries on a monthly basis, seasonally adjusted. As of November, 1988, the textile mill products industry was operating at 88.4% of capacity, down from a peak of 91.5% reported for January, 1988. This was close to the 1973 peak of 92.1%. The lowpoint was in 1975, which saw a level of only 58.9%.

Industry Location

In the textile mill products industry ten states accounted for 86% of the total value added by manufacture in 1986. "Value Added" is the best measure of the contribution made within the industry's manufacturing process as it excludes the cost of materials and supplies.

North Carolina was the leading state in value added, accounting for 27.2% of the industry's total, followed by Georgia with a 17.2% share.

In the apparel industry there is less concentration on a state basis. There are a large number of small operations, widely dispersed throughout the United States. The ten states leading in "value added" by manufacture in 1986 accounted for 67.6% of the industry total. The largest producer, New York, accounted for 16.2% of the total value added by manufacture within the industry; the second largest contributor, California had a 10.6% share. Of the total value of industry shipments in 1986, New York's share was 18.2%; California's 10.0%.

GENERAL INDUSTRY STATISTICS

Industry Location (continued)

Leading States in the Textile/Apparel Industries: 1986
(Based on the Value Added By Manufacture)
(Employment in thousands; dollar figures in millions)

Industry	No. of Employees	Value Added By Manufacture	Value of Shipments
Textile mill products			
North Carolina	194.3	$ 6,045	$14,790
Georgia	94.6	3,819	11,617
South Carolina	94.0	3,394	8,406
Virginia	35.1	1,260	3,069
Alabama	32.0	1,160	2,756
Pennsylvania	32.3	842	2,136
New York	22.7	733	1,646
Tennessee	21.2	630	1,635
Massachusetts	16.1	641	1,360
New Jersey	12.1	467	955
10-State total	554.4	19,000	48,370
Industry total	644.4	22,232	55,348
10-State share	86.0%	85.5%	87.4%
Apparel & other textile products			
New York	120.6	4,598	10,750
California	93.6	3,005	6,147
Georgia	69.5	1,754	2,690
North Carolina	74.2	1,574	3,673
Pennsylvania	96.4	2,025	3,628
Texas	41.7	1,361	2,646
Michigan	20.0	1,201	2,580
New Jersey	42.3	1,227	2,517
Alabama	56.3	1,266	2,418
Tennessee	55.9	1,216	2,224
10-State total	670.5	19,227	40,273
Industry total	1,016.5	28,451	57,919
10-State share	66.0%	67.6%	69.5%

Source: U.S. Bureau of the Census:
1986 Annual Survey of Manufactures-
Geographic Area Statistics M86(AS)-6

Employment & Earnings

Long-term trends in the U.S. textile/apparel complex are evident in statistics on employment and payrolls compiled by the Census Bureau through 1986.

GENERAL INDUSTRY STATISTICS

Employment & Earnings (continued)

Employment & Payrolls in Textile & Apparel Manufacturing Plants, Selected Years: 1958-1986
(Employment in thousands; payroll in millions)

Year	Textile Mills Products Industry		Apparel & Other Textile Products Industry	
	Employees	Payroll	Employees	Payroll
1986	644.3	$10,305.8	1,016.5	$12,471.2
1985	658.4	9,967.1	1,059.2	12,470.6
1984	709.5	10,191.6	1,147.5	12,877.0
1983	723.3	10,060.5	1,181.7	12,791.6
1982	717.4	9,046.1	1,189.2	12,128.8
1981	785.2	9,574.0	1,251.1	11,804.6
1980	816.1	9,228.1	1,307.3	11,354.3
1979	842.1	8,823.5	1,306.2	10,624.2
1978	861.8	8,367.9	1,321.8	10,190.8
1972	952.6	6,051.0	1,368.3	7,212.0
1963	863.2	3,385.0	1,279.5	4,423.0
1958	903.2	2,942.9	1,181.0	3,586.6

Source: U.S. Bureau of the Census

Production Worker Employment in The Fiber/Textile/Apparel Industries: 1985-1988
(Annual average numbers in thousands)

	1988(p)	1987	1986(r)	1985(r)	% Change 88/87	% Change 88/85
Total	1,597.8	1,597.6	1,581.5	1,588.1	-0-	0.02%
Fibers, organic, noncellulosic*	45.3	44.7	46.2	46.9	1.3%	- 3.4
Textile mill products industry	629.6	628.8	608.4	606.5	0.1	- 3.8
Industry components:						
Weaving mills, cotton	89.4	90.8	89.7	94.9	-1.5	- 5.8
Weaving mills, manmade fibers	81.9	77.8	74.2	80.0	5.3	2.4
Weaving/finishing mills, wool	15.8	14.9	14.8	14.7	6.0	7.5
Narrow fabric mills	21.2	20.0	19.1	18.5	6.0	14.6
Knitting mills (incl. hosiery)	183.2	186.7	180.5	172.3	-1.9	6.3
Textile finishing, exc. wool	48.9	50.6	49.7	49.1	-3.4	- 0.4
Floor covering mills	47.6	46.8	45.5	44.2	1.7	7.7
Yarn & thread mills	99.1	99.5	93.1	89.6	0.4	10.6
Miscellaneous textile goods	42.6	41.8	42.0	43.2	1.9	- 1.4
Apparel & other textile products	922.9	924.3	926.9	944.7	- 0.1	- 2.4
Apparel	761.4	767.0	777.5	794.1	- 0.7	- 4.1
Home textiles, automotive & apparel trimmings	161.5	157.3	151.4	150.6	2.7	7.2

* Employment in the manufacture of cellulosic fibers is not reported.
(r) revised (p) preliminary

Source: U.S. Bureau of Labor Statistics:
Employment & Earnings

GENERAL INDUSTRY STATISTICS

Employment & Earnings (continued)

Trends in production worker employment in the textile/apparel industrial complex as reported by the BLS show a mixed picture for 1988, and over the longer term. Some segments were helped by the increase in export activity last year. The strongest gains in employment were noted in narrow fabric mill employment, in woolen mills and man-made fiber weaving mills. The downturn in production worker employment in domestic apparel plants continued, but home textiles again registered an increase for the third consecutive year.

Average weekly hours of production workers in textile and apparel and other textile product plants generally averaged below 1987. The average in textile mills in 1988 was 41.1, down from 41.8 in 1987; in apparel plants, 36.9 vs. 37.0 hours in 1987. Production worker activity in both sectors, however, was higher than in 1985 (which averaged 39.7 in textile mills, 36.4 hours in apparel and other textile products).

Production workers' weekly hours in noncellulosic fiber mills averaged 43.1--a record level according to BLS data covering the past 12 years.

Employment & Earnings: Textile Industry

In the textile mill industry, employment dropped from a high of 952.6 thousand employees in 1972 to 644.3 thousand in 1986. This was a decline of 32.4%, or 308.3 thousand employees, according to the Census Bureau. The 1986 total was 2.4% below 1985. U.S. Bureau of Labor Statistics show a flat trend in employment during 1987 and 1988. (BLS figures on employment differ somewhat from Census Bureau figures due to differences in the methodology followed in compilation.)

Competition from imports has been intense for several decades. However, the industry has responded by increasing productivity, rationalizing production and making structural reorganizations. Total production has held up reasonably well. Although imports of apparel are continuing to grow, total production of broad woven goods has held up partly because of greater emphasis on domestics and home furnishings textiles and because of 807 programs where U.S. manufactured fabrics are shipped to low wage-level countries for fabrication, then returned to the United States.

Average annual employment for the industry as a whole dipped slightly in 1988 but the situation varied from segment to segment. In the broad woven goods sector employment was off but total output increased slightly, reflecting gains in productivity. A similar situation has been taking place in the yarn and thread sector. These mills produce yarn which is used both in woven goods and is also sold to knitters. Reports for the year 1987, show that production was up, although the labor force has declined. This also implies growing productivity resulting from modernization and the continuing switch to open end spinning. On the other hand, employment in knitting mills and floor covering mills was up as growth continued in these areas.

GENERAL INDUSTRY STATISTICS

Employment & Earnings: Textile Industry (continued)

According to the Bureau of Labor Statistics, women account for 47-48% of employment in the textile industry. However, in knitting mills they represent over 68% of the work force. This pattern has not changed in recent years.

Average hourly wages in textiles inched ahead to $7.51 as of Dec. 1988, as compared with $7.31 at the end of 1987. The U.S. has not been for a number of years the highest wage-level country, being topped by both Italy and Japan. Average hours worked were 41-42 per week in 1988, substantially the same as in previous years.

Textile Industry Employment in Leading States: 1984-1988
(Annual average numbers in thousands)

Year	Georgia	North Carolina	South Carolina
1988*	108.6	217.4	105.9
1987	107.2	219.4	107.1
1986	102.0	208.2	104.6
1985	100.8	206.1	102.2
1984	105.7	220.0	114.4

* Figures for '88 are projections based on data for 3 quarters.

Source: U.S. Bureau of the Census: 1986 Annual Survey of Manufactures-Geographic Area Statistics M86(AS)-6

A study by the Bureau of Labor Statistics in June 1985 showed that there is no appreciable difference in wages in the Southeast as compared with the rest of the U.S. The continued importance of the Southeast as the center of textile manufacturing is based on the infrastructure and other support factors.

Employment & Earnings: Apparel & Other Textile Products

In the fabricating industies which are more labor intensive than textile manufacturing, employment in 1986 was reported at 1,016.5 thousand by the Census Bureau. This represented a decline of more than 25% or 357.8 thousand workers, from the high of 1,368.3 thousand reported by the Bureau for 1972. The 1988 level was 10% lower than in 1984.

The Congressional Office of Technology Assessment study of the textile/apparel industry, released in April 1987, reviewed the industries' losing battle against imports, but emphasized that, despite problems, these industries remain a critical factor inside many regional economies. The study predicted that future textile and apparel jobs would include fewer low-paid, entry-level positions, and more highly trained operators and technicians. Indeed massive research efforts are being made to automate many repetitive apparel manufacturing functions such as pocketings and waist bands in men's trousers. Other processes such as folding fabrics and positioning small pieces for automated sewing are continually being studied.

On a current basis, monthly and annual employment and earnings statistics are compiled by the Bureau of Labor Statistics (BLS), U.S. Department of Labor. Since the methods of compilation differ, the BLS figures on employment do not exactly match Census Bureau reports, although trends reported are similar.

Employment & Earnings: Apparel & Other Textile Products (continued)

Production worker employment in apparel manufacturing declined in both 1987 and 1988, continuing a trend which extends back into the seventies. Declines were experienced in most apparel categories but there have been some gains in the employment of workers engaged in manufacturing home textiles. The decline in production worker employment in apparel manufacturing is caused by the growing volume of imports.

Production Worker Employment in Apparel & Other Textile Product Plants: 1984-1986

(Annual average numbers in thousands)

	1988(p)	1987	1986	1985	1984	% Change 1988/84
Apparel & other textile products	922.9	934.8	941.2	948.3	981.2	- 6.0%
All apparel	762.0	776.4	790.2	798.0	848.2	--
Selected industry components:						
Men's & boys' suits & coats	50.4	49.4	52.2	55.6	65.7	- 23.3
Men's & boys' furnishings	267.8	271.5	274.1	272.1	273.7	- 2.2
Women's outerwear	287.9	297.5	297.0	302.6	328.9	- 12.8
Children's outerwear	47.5	48.2	53.5	51.5	52.0	- 9.2
Women's, children's innerwear	58.6	50.8	63.5	64.5	70.7	- 16.6
Misc. apparel, accessories	35.0	34.7	35.3	36.4	41.1	- 14.8
Misc. textile products (home textiles, automotive & apparel trimmings)	160.9	158.4	151.0	150.3	133.0	21.0

na not available

Source: Bureau of Labor Statistics, U.S. Department of Labor Statistics

Apparel manufacturing is highly labor-intensive, with production workers constituting 84% of the work force compared with 68% in all manufacturing plants. Hourly earnings of production workers in apparel average $6.27 as compared with an overall average of $10.37 for all U.S. manufacturing industries in 1988. The average hourly rate in 1985 was $5.73.

Apparel manufacturers often rely on contractors and off-shore sources for production. The use of contractors is quite important in the case of women's styled apparel such as dresses or medium/better priced sportswear. Contract manufacturing is less prevalent in the case of men's volume priced apparel such as jeans, slacks, sweat shirts and underwear. However, in recent years, there has been a growing tendency for domestic manufacturers to contract out a large portion of their production off-shore. Such apparel manufacturers may produce their samples and residual production here in the United States but have the bulk of their production manufacturing in Hong Kong or Korea. Almost all large U.S. manufacturers have such arrangements in place.

The manufacturing of women's and children's styled apparel has historically been concentrated in the New York Metropolitan area. A common arrangement has been for producers of medium or high style apparel to have their cutting and sample manufacturing done in the Seventh Avenue area, with the actual sewing being done on contract in outlying regions like Southern New Jersey; the Scranton/Reading area of Pennsylvania or Long Island. Apparel employment in Manhattan has been down over the years but many have stabilized because of the large number of immigrants from Asia and Latin America who often work at minimum wages in sweat shops in Chinatown or Queens.

Employment & Earnings: Apparel & Other Textile Products (continued)

While the bulk of the actual sewing of garments takes place outside of the New York area, the styling, merchandising and selling functions remain concentrated in the Seventh Avenue area. The only comparable function of any size exists in the Los Angeles area which is a market in itself with special styling and merchandising needs. The Los Angeles garment industry depends heavily on labor of Hispanic origin, mainly Mexican.

The Mid-Atlantic Regional Office of the BLS has issued a report (March 1987) based on an analysis of the elimination of jobs in New York City from June 1977 to June 1986. Of the top nine job-losing sectors in manufacturing, seven were in apparel and textiles. Women's outerwear makers topped the list with the elimination of 15,300 jobs. In second place, were men's and boys' tailored clothing manufacturing, with jobs down from 10,800 to 3,400. Miscellaneous fabricated textiles placed third, declining from 20,800 employees to 13,500.

Employment in the women's and children's undergarment sector in New York fell from 10,800 to 4,900; children's outerwear makers cut employment from 9,600 to 4,100. Knitting mills reduced employment from 20,500 to 15,400. Of the top nine job-losing sectors in manufacturing, seven were in textiles/apparel.

Employment Size of Mills/Plants

In 1986, over 84% of the employees in the textile mill products industry were in mills employing 100 or more employees. In very large plants, employing more than 500 employees, employment represented 38% of the total. This last figure was down slightly, reflecting greater productivity.

The apparel and other textile products industry has many more smaller plants. The typical apparel plant employs from 100-500 employees, accounting for 50% of total employment. Large plants, employing more than 500 employees, account for 15% more of the total.

Employment-Size of Plants: 1986

		Employment Size Class			
	Total	Under 50	50-90	100-499	500 or More
Textile mill products industry:					
No. of mills	6,152	3,726	803	1,338	285
Employees	667,969	52,234	56,662	304,833	254,240
Annual payroll (million $)	$10,780	874	886	4,919	4,102
Apparel & other textile products:					
No. of plants	22,525	17,280	2,410	2,638	205
Employees	1,082,437	214,076	167,605	537,936	— 162,820
Annual payroll (million $)	13,383	2,777	1,890	6,130	2,586

Source: U.S. Bureau of the Census:
County Business Patterns, 1986

GENERAL INDUSTRY STATISTICS

Ranking of the Textile/Apparel Industries Complex

Over the years, there has been a general decline in production worker employment in the U.S. industry, except in the case of new growth industries such as computers, electronics and drugs. While the textile/apparel industrial complex has been part of this trend, it still ranks first among all U.S. manufacturing industries in numbers of production workers.

In 1986-87, the complex averaged 1.5 million workers (44.7 thousand in manmade fiber plants, 590,000 in textile mills and 904,000 in apparel and other textile product plants). This compares with production worker counts in the second ranking industrial employer, electrical and electronic equipment, which had 1.02 million production workers in 1987 (preliminary estimates from 1987 Census of Manufactures).

In the ranking of manufacturing industries based on dollar volume, the best criteria is the value added by manufacture. This avoids the duplication in the value of shipment figures which results from the inclusion of the shipments of plants producing material and components along with the shipments of plants producing finished products. It is considered the best value measure available in census data for comparing the relative economic importance of an industry or geographic area.

The combined fiber/textile/apparel complex ranked eighth among U.S. manufacturing industries based on value added by manufacture ($55.6 billion). Considered separately, the apparel and other textile products industry, with value added by manufacture at $28.4 billion in 1986, ranked in 12th place; the fiber/textile industry (which includes hosiery and knitwear) was 13th in rank.

Ranking of Major U.S. Manufacturing Industry Classifications
(Based on Value Added By Manufacture)

Industry	Rank	Value Added By Manufacturer (millions of $)
Transportation equipment	1	$125,705.6
Electric & electronic equipment	2	112,421.5
Food & kindred products	3	112,190.5
Machinery, except electrical	4	108,365.0
Chemicals (excluding fibers)	5	95,110.1
Printing & publishing	6	78,150.4
Fabricated metal products	7	68,620.0
Fiber/textile/apparel industry complex	8	55,586.7
Paper & allied products	9	43,924.5
Instruments & related	10	40,005.3

Source: Based on U.S. Bureau of the Census:
1986 Annual Survey of Manufactures

INDUSTRY CONCENTRATION

According to the 1982 Census of Manufactures, the 5 leading cellulosic producers accounted for 100% of shipments; the 8 leading noncellulosic producers accounted for 91% of shipments.

In the textile mills products industry, although there were 5,376 companies operating, 887 multi-unit firms accounted for 84% of shipments. Over the years, the share of business held by the big, publicly-owned companies has been growing.

In the apparel industry, the situation is quite different. In 1982, there were a total of 22,018 firms operating of whom 1,546 were multi-plant companies. However, the large companies accounted for only 61% of shipments. Concentration has been growing in apparel manufacturing but this remains an industry with many small companies.

Final reports for the 1987 Census of Manufactures are not due to be published until 1989 or early 1990 but the current situation is well known.

In fiber production, there have been some changes. There has been a major merger between Hoechst and Celanese followed by the spin-off of Fiber Industries. American Enka has been merged with BASF and there has been a major reduction of capacity by Eastman Chemical.

In the textile mill products industry, the situation is highly confused. As a result of take-overs, leveraged buyouts and the selling off of operating divisions so as to retire debt, the position of many leading companies has changed from month to month. Burlington has been dismantled. Some divisions were sold; the remainder have disappeared from public ownership in a leveraged buyout. West Point/Pepperell was acquired by Fruit-of-the-Loom in a takeover. It is generally presumed that divisions will be sold to retire debt. J.P. Stevens, too, has disappeared as a publicly owned comany. Some portions were sold; others acquired in a leveraged buyout.

Apparel Manufacturing Concentration

Census concentration data on apparel manufacturing is difficult to evaluate and use for business purposes. This is because the data focuses on employment in manufacturing plants and the ownership of those plants rather than on the individuals and companies who make the decisions on what to manufacture, and who buy the fabric, design the apparel and merchandise the product...but who may do little or no manufacturing themselves. These firms are classified by Census as "jobbers".

The Census identified 22,525 plants, operated by 22,018 companies as producing apparel in 1986; many of these are contractors. They may rarely purchase fabric on their own account (although they would be customers for sewing machines, thread and findings used in apparel manufacturing).

Studies made by Dun & Bradstreet for years show that there are about eight thousand firms on whom credit reports are issued. Of these firms 800-1,000 have sales in excess of $5 million. Such firms book 85% of the business. Their number is steadily dwindling. Concentration is much greater in men's wear than in women's wear. High style apparel is more likely to be produced by contractors, than volume items like jeans.

OPERATING & FINANCIAL RESULTS

Spun yarn, produced by cotton system spinners, is used mostly in integrated weaving or knitting operation carried on by the same company. The remaining 35.5% is sold to others who may use it for weaving, knitting, tufting or thread.

The profitability of spun yarns used in integrated operations is not separately reported but is tied in with the profitability of the whole operation. However, the value added in yarn spinning represents an important part of the total cost of broad woven fabric production.

During the 12 years from 1976 through 1987, the proportion of spun yarn offered "for sale" has tended to increase slightly. This reflects the growing importance of knitting and also of tufted carpet production. In the United States, most woven goods are produced in integrated plants. Thus, in 1986 and 1987, 90% of the weaving yarns produced were used by the same company.

A reverse situation exists in the case of knitting yarns. In those same years, 74-75% of the knitting yarns were sold to others. Certain knitters who produce basic commodity type products like underwear, sweat shirts and other fleece products find it profitable to spin their own yarn. Other knitters who produce sport shirts, women's dresses and sportswear prefer the flexibility of being able to buy a wide variety of yarns on the open market.

Carpet and rug yarns are produced in both integrated mills and independent spinning plants, with between 35%-43% of the yarns being traded in the "for sale" market. (Spun yarns used in carpeting should not be confused with "producer-textured" filament yarns which are processed by fiber producers.)

Most independent spinners are privately owned companies but financial data is available on several publicly owned companies.

Sales and Profits of Cotton System Spinners
(Figures in thousands of dollars)

	1987			1986		
	Sales	Net Income	%	Sales	Net Income	%
Dixie Yarns (merged with Ticaro)	$580,504	$26,283	4.5%	$300,700	$14,378	4.4%
Carolina Mill (year ends 9/27)	200,621	13,788	6.9	187,884	7,773	4.1
Crown America	90,399	750	0.8	87,144	1,626	1.9

Source: Fairchild News Service,
Fairchild Publications, New York, NY

OPERATING & FINANCIAL RESULTS

Man-made filament yarn or "thrown yarn" is used both in "flat" form for fabrics like woven taffetas and marquisettes for curtains and in tricot. Such yarns are usually sold by the fiber producers, ready for weaving or knitting.

Textured filament yarns are given a high twist or crimp and heat set both by fiber producers and independent throwsters. Such yarns are closely identified with double knits and bottom weight fabrics for slacks and other sportswear. Such fabrics fell from public favor a number of years ago and there is no sign that they will return to fashion. The DuPont Company which has the largest stake in textured yarn, anticipates a dip in the volume of business in 1989 but looks to a solid future.

The Manmade Fiber Industry

The years from 1985 through 1987 were generally poor for the manmade fiber industry. In both 1986 and 1987, there was a major resurgence in cotton usage. Cotton consumption advanced by 18% and 13% respectively. Shipments of cellulosic yarn were flat in 1986 and down by 9.7% in 1987. However, the real impact of increased cotton consumption was felt in the noncellulosic sector. Production of all noncellulosics fell well below capacity during the period from 1985-1987, with the greatest impact on polyester.

Polyester capacity utilization began to improve in 1987, continuing through 1988, but profit margins were unsatisfactory. Raw material costs were rising but the producers felt unable to raise prices. Important reductions in industry capacity took place. Eastman Chemical withdrew from polyester filament production entirely and in early 1989 announced plans to close a 220 million pound staple producing facility in Columbia, S.C., reducing Eastman's polyester staple capacity to 160 million pounds. Previously, Akzona's American Enka plant had been merged into BASF. In March of 1989, an acute shortage of polyester staple suddenly developed. The situation in early 1989 appears as follows:

Major Producers of Polyester Staple and Share of Market-1989
(Estimates in millions of pounds--beginning of 1989)

	Pounds (mils.)	%
Industry, total	2,584 (TEB)	100%
DuPont	815	32
Hoechst-Celanese	720	28
Fiber Industries	440	17
Eastman Chemical*	400	15
Other	210	8

(TEB) Textile Economics Bureau
* Prior to reduction of capacity, as announced.

Source: Fairchild News Service, Fairchild Publications, New York, NY

OPERATING & FINANCIAL RESULTS

Manmade Fiber Profitability

Most of the manmade fiber producers are divisions of multinational chemical companies. In most cases, fiber sales and profits are not disclosed. Two exceptions are DuPont and Hoechst-Celanese for whom information follows.

DuPont Fiber Sales and Profits
(Dollar figures in millions)

	Sales	Profits	Profits as a % of Sales	Profit as a % of Total Company Profits
1988	$5,749	$719	12.5%	29.3%
1987	5,261	624	11.9	29.7
1986	4,786	542	11.3	30.0

Hoechst-Celanese Corporation (Fiber & Films) Sales and Profits

	Sales	Profits	Profits as a % of Sales	Profit as a % of Total Company Profits
1988	$2,446	$211	8.6%	--
1987 (10 months)	2,167	242	11.2	--

Source: Fairchild News Service, Fairchild Publications, New York, NY

At DuPont, the specialty fibers such as Lycra, Kevlar and Nomex have made important contributions to profits. For 1989, the acute shortage of polyester staple should result in improved margins.

Monsanto does not report fiber sales and profits separately. The data is included in the operations of the chemical division. In 1988, sales for this division were $3,838 million, while earnings were $486 million, pretax or 12.5%. An executive of Monsanto stated for the record (as reported by Fairchild News Service) that fiber sales in 1988 were in the neighborhood of $1 billion at "somewhat higher earnings" than for the rest of the division. This works out to around $140 million, pretax profit.

Long Term Fiber Profitability

A study made of fiber profitability by Dr. David I. Goldenberg, president of Systematic Forecasting, Inc. of Fairlawn, New Jersey, shows that cellulosic manufacturing profitability declined to 10% pretax return on assets in the early seventies and has remained below this level for all years since. For several years, returns were in fact negative. This explains why there has been a tendency for producers to withdraw from the industry.

Long Term Fiber Profitability (continued)

The non-cellulosic industry on the other hand, according to the Goldenberg study, entered a mature phase in 1974. Since then, pretax returns on assets have been in the range of 10-20%, a figure which is well below returns for all manufacturing industries. At a level around 15%, the weaker producers would be ambivalent about whether to increase their investment. In good years, the answer might be "yes", in poor ones, there would be withdrawals. Certainly it would be difficult for marginal producers to invest in modernization or expansion. Dr. Goldenberger's analysis helps to explain recent reductions in capacity.

Textile Manufacturing Profitability

Textile mill profits dropped slightly in 1988 to $1,535 million. The total yardage of fabric produced has increased slightly. The large mills have been concentrating their marketing efforts on fabrics used in home furnishings. Then, too, the 807 programs have boosted sales of apparel fabrics. Current 807 yardage, around 600 million, represents 4% of domestic production. This is likely to increase.

Textile Industry Profit Data: 1980-1988
(Dollar figures in millions)

			Quarterly Average Annual Rate of Profits:		
	Net Sales	Net Profits	Per $ of Net Sales	On Total Assets	On Stockholders' Equity
1988	$49,443(e)	$1,535(e)	3.1(e)	4.7(e)	12.0(e)
1987	48,284	1,891	3.9	6.4	15.0
1986	51,174	2,007	3.9	6.7	14.4
1985	50,470	1,200	2.4	4.0	8.6
1984	51,636	1,635	3.2	5.5	11.2
1983	47,993	1,599	3.3	6.1	12.0
1982	41,653	851	2.1	3.7	6.9
1981	48,292	1,157	2.4	4.7	9.4
1980	44,882	977	2.2	4.3	8.4

(e) estimated

Source: U.S. Department of Commerce,
Bureau of the Census: Quarterly Financial Report

Textile Manufacturing Profitability (continued)

The 1987 edition of this Fact File listed seven major publicly owned textile companies. As a result of take-overs and mergers, three of these are now gone. The largest of those remaining, West Pont/Pepperell, has accepted a take-over bid by Fruit-Of-the-Loom and is likely to be restructured.

The table which follows supplies information about nine publicly traded textile companies. Not included in this list are some major privately held textile producers such as Milliken & Company, whose sales are estimated at $2.2 billion by Forbes; Collins & Aikman, a division of Wickes, estimated at $1 billion; Cone Mills, sales estimated at $650 million; and Dan River, estimated at $360 million in 1987.

Publicly Owned Textile Companies Sales & Profits: 1987, 1988
(Figures in millions of dollars)

Company	Period Ending	Sales 1988	Sales 1987	% Change 1988/87	Profits 1988	Profits 1987	% Change 1988/87
West Point/Pepperell	12/31	$2,367.0	$1,731.6	26.8%	$74.8	$71.6	4.5%
Springs Industries	1/2	1,824.7	1,661.1	9.0	52.8	55.7	- 5.5
Fieldcrest Cannon	12/31	1,338.2	1,399.2	- 4.4	11.3	(3.7)	--
Guilford Mills	12/31	592.3	560.4	5.4	25.6	25.5	--
Delta Woodside	12/31	523.2	537.5	2.7	26.9	25.3	6.3
Thomaston Mills	6/27	187.4	171.4	8.5	10.6	12.5	-15.2
FAB	12/28	147.6	137.6	6.8	9.2	12.4	-25.8
Quaker Fabrics	2/27	105.5	106.3	0.8	1.9	2.3	-17.4

Source: Fairchild News Service, Fairchild Publications, New York, NY

Apparel Manufacturers Profitability

Many important apparel manufacturers have undergone reorganization, takeover, merger or divestiture. During the last two years, the most important apparel conglomerate has disappeared as an operator of apparel companies. Palm Beach has had a leveraged buyout. Manhattan Industries was absorbed by Salant. Cluett-Peabody had previously been acquired by West Point/Pepperell, which in turn, has been acquired by Fruit-of-the-Loom. The table which follows shows the current situation of publicly-held-companies in the apparel industry.

OPERATING & FINANCIAL RESULTS

Apparel Manufacturers Profitability (continued)

Publicly-Held Companies in the Apparel Industry: 1987, 1988
(Figures in millions of dollars)

Company	Period Ending	Sales 1988	Sales 1987	% Change 1988/87	Profits 1988	Profits 1987	% Change 1988/87
VF Corp.	1/2	$2,516.1	$2,573.8	- 2.2%	$179.7	$ 173.7	- 3.4%
Hartmarx	11/30	1,080.4	1,174.3	- 8.0	41.3	38.0	- 8.7
Liz Claiborne	12/26	1,184.2	1,053.3	12.4	110.3	114.4	- 3.6
Kellwood	4/30	724.2	670.4	8.0	32.0	29.1	10.0
Leslie Fay	12/26	682.7	582.0	17.3	22.2	19.7	12.7
Oxford Industries	6/3	590.0	583.0	1.2	(4.6)	5.5	na
Phillips-Van Heusen	10/31	641.0	500.0	28.2	12.5	25.9	-51.7
Russell Corp.	1/2	531.1	497.0	10.9	53.8	45.2	19.0
Genesco	1/31	514.6	405.8	26.8	20.4	11.4	-78.9
Crystal Brands	12/27	432.5	359.8	20.2	14.6	15.9	- 8.4
Tultex	12/12	348.7	339.1	- 2.8	28.8	21.2	-35.8
Farah	1/31	338.8	321.3	5.4	(4.8)	1.3	na

( )-losses na not available

Source: Daily News Record, April 6, 1989

FIBER & YARN PRODUCTION/SHIPMENTS/CONSUMPTION

Cotton Versus Polyester Staple

There has been a major change since 1986-87 in the market outlook for polyester in relation to cotton. For the years from 1981 through 1986, manmade fiber producers struggled with serious over capacity in relation to demand. Each year, from 1985, cotton consumption and share of the market grew. Polyester production in relation to capacity hovered around 80%.

Starting in 1986, some improvement in capacity utilization began to take place. This was caused in part by withdrawals of production capacity. However, there is some evidence that the increasing market penetration being achieved by cotton, may have peaked or leveled off. The evidence on this point is not clear.

In early 1989, a major polyester producer, Eastman Chemical Company announced a major reduction in polyester capacity, in addition to cuts previously taken. For the year 1988, capacity utilization has risen to 94.9%. Almost simultaneously with the Eastman announcement, a severe shortage of polyester staple developed.

Cotton Versus Polyester Staple (continued)

The outlook in early 1989 is unclear. Has a basic change in consumer preference for cotton versus polyester taken place? Manmade fiber producers have announced plans to increase polyester staple capacity. Will supply soon equal or exceed demand?

The outlook is further complicated by a reversal in the cotton versus polyester price situation. During the years 1986 to 1987, polyester was first priced at 52 cents a pound, then moved to 68 cents for much of 1987. In 1988, rising raw material costs forced price increases to 76 cents. Prices then moved up to 80 cents in early 1989, with further hikes possible.

Cotton prices have generally moved in the opposite direction. Very heavy cotton production (14.4 million bales) took place in both 1987 and 1988. During much of 1987, cotton was in the range of 70-80 cents a pound. In 1988, prices fluctuated from 58 cents to 71 cents a pound. Such major price changes are in themselves a destabilizing factor in textile profitability. Price uncertainties can have the effect of biasing a mill in favor of one fiber over another. In early 1989, cotton future prices have hovered in the low 60's--25-30% below polyester staple. With an enormous crop carry-over of 8.7 million bales, there is a possibility that cotton prices may drop much lower. Long term, a cotton price well below polyester should increase consumption. Short term, uncertainty over the price outlook could have the opposite effect.

Cotton System Fiber Consumption (On Cotton System Spindles)
(Cotton: thousands of running bales; manmade fiber: millions of pounds)

	Cotton	Manmade Fibers
1988	7,294	1,753
1987	7,095	1,739
1986	6,197	1,718
1985	5,268	1,568
1984	5,303	1,731
1976	6,833	1,839

Source: U.S. Department of Commerce, Bureau of the Census:
Consumption on the Cotton System M22P(88)

Wool System/Manmade Fibers

Wool usage is associated with high quality and high priced apparel. Items such as men's tailored clothing, sportswear and overcoats; women's suits and coats, and sweaters for both sexes of all ages. A certain amount of wool is also used in carpets, but the percentage has steadily been declining.

Wool System/Manmade Fibers (continued)

Because of good economic conditions during the 1980's, the use of wool increased slightly from year to year. A major growth area has been women's executive type clothing such as suits and blazers. In most years about 69% of the wool consumed in American mills is imported. Much the largest portion comes from Australia. New Zealand is a distant second.

World-wide, the demand for wool has been growing. Production has barely kept pace with consumption. Thus the major producers have been able to advance prices. For example, top quality Australian Wool, Grade 70's, used in fine per pound worsted fabrics, advanced from $2.91 per pound in 1985 to $4.35 per pound in 1987, an increase of 57%. Lower grades were advanced by more than 40% in two years.

The effect of these sharp increases was to make it difficult to U.S. tailored clothing manufacturers to offer 100% wool suits in the popular and medium price ranges-up to $200. The solution often adopted was to blend polyester staple with wool in various percentages to meet price objectives. Thus the total poundage of fibers processed in 1988 advanced, but apparel class wool consumption remained flat at 129 million pounds as shown in the table which follows.

Summary of Fibers Consumed in Woolen Spinning & Worsted Combing: 1982, 1986-1988
(Millions of pounds)

	1988(p)	1987	1986	1982
All fibers	751.9	720.1	676.8	558.0
Raw wool	146.0(e)	142.8	136.7	115.7
Apparel class	129.1	129.7	126.8	105.9
Wool system	56.6	61.0	66.3	48.3
Worsted combing	72.5	68.7	60.5	57.5
Noils, reprocessed & reused wool and other fibers*	27.9	29.7	34.6	25.3
Other fibers: manmades, cotton, linen, etc.	578.6	547.7	505.5	417.0

(p) preliminary
(e) U.S.D.A. estimate from "Cotton and Wool Situation & Outlook Report"
* Includes mohair, alpaca, vicuna and other specialty fibers.
Note: Fiber consumption in cotton system spinning is not included in the above table.

Source: U.S. Bureau of the Census: Current Industrial Reports-Consumption on the Woolen System & Worsted Combing M22D(88)

FIBER & YARN PRODUCTION/SHIPMENTS/CONSUMPTION

Manmade Fibers: Production

A review of annual production information from 1977 through 1988 on manmade fibers, compiled by the Textile Economics Bureau, shows that output by U.S. producers reached a highpoint in 1979 when manmade fiber production totaled 9,348 million pounds. Noncellulosics then accounted for 90% of the total.

During the years 1981-85, there was a general decline both in production and in capacity utilization. Starting with 1986, signs of improvement started to appear. Production advanced further in 1987 with utilization improving even more partly as a result of capacity eliminations. In 1988, there was a further improvement so that total production now approaches the 1979 high. Noncellulosic fiber production in 1988 approximated the 1979 figure. Output of the cellulosics declined by small amounts during most of the 80's but now appears to have stabilized.

Review of Manmade Fiber Production by U.S. Producers
& Capacity Utilization: Selected Years 1977-1988
(Production in millions of pounds)

	Total		Noncellulosic		Cellulosic	
Year	Production	Utilization	Production	Utilization	Production	Utilization
1988	9,103	88.3%	8,489	88.5%	614	86.1%
1987	8,921	88.7	8,316	88.9	605	85.3
1986	8,447	85.2	7,828	85.0	619	87.3
1985	8,122	78.5	7,564	79.1	558	71.2
1983	8,174	80.0	7,534	80.4	640	75.7
1981	8,752	82.6	7,982	82.3	770	86.7
1979	9,348	85.8	8,418	86.0	930	83.9
1977	8,200	78.7	7,312	78.2	888	83.5

Note: Data on glass fibers cannot be published due to company disclosure.

Source: Textile Economics Bureau:
Textile Organon (January, 1989)

Capacity utilization rates picked up sharply in 1987 due both to capacity cutbacks and to improved demand. For noncellulosics, the rate rose to an average 88.5%--up from 71% in 1985. During most of 1988, capacity utilization was at or above 88%. However, there are important differences in the situation and outlook for the different fibers. This is evident in the table which follows.

Manmade Fibers: Production (continued)

Manmade Fiber Production: 1982, 1984, 1986-1988
(Millions of pounds)

	1988	1987	1986	1984	1982	% Change 1988/82
Total reported	9,150	8,938	8,447	8,100	7,044	30.0%
Cellulosic fibers (rayon/ acetate)	624	608	619	629	584	6.8
Yarn+monofilament	217	192	215	239	228	- 4.9
Staple+tow	407	416	404	390	356	4.0
Noncellulosics	8,527	8,331	7,828	7,472	6,460	32.0
Yarn+monofilament	4,160	4,018	3,836	3,524	3,057	36.0
Nylon	1,738	1,694	1,606	1,577	1,242	40.0
Olefin	1,191	1,144	1,058	747	585	104.0
Polyester	1,231	1,180	1,173	1,200	1,214	1.4
Staple+tow+fiberfill	4,367	4,313	3,992	3,947	3,403	28.3
Nylon	964	986	908	835	686	40.0
Polyester	2,449	2,369	2,132	2,192	1,955	25.3
Olefin, vinyon	364	364	335	250	138	164.0

Source: Textile Economics Bureau: Textile Organon (January, 1989)

For more than ten years, cellulosic fiber production has been flat or declining. This was accompanied by reductions in capacity. In addition, the rayon producers have had difficult problems with pollution control and have been reluctant to make major expenditures to accomplish this. Today, consumption may have bottomed out. In fact, when Avtex announced the intention of withdrawing from rayon production in 1988, there was a near panic among users. Both BASF and Courtaulds have announced plans to increase capacity. So, the outlook is for modest increases in production.

Cellulosic yarn and monofilament is largely acetate: used in antique satins, lining fabrics and in lustrous taffetas. Each of these applicatons has a loyal following. Rayon staple is also important in home furnishings. The fiber takes high or bright fashion colors and performs well. What the cellulosic fibers lack in toughness, good wearing qualities or shape retention is balanced by desired aesthetic qualities.

Nylon is considered the "toughest" of the textile fibers as expressed in terms of stregnth and elastic recovery. These characteristics are important in upholstery fabric, carpeting, and in many industrial uses. Nylon filament also goes into filament warp fabrics for such diverse end uses as women's lingerie and curtains. DuPont, the world's largest producer of nylon has in recent years made major investments in updating its nylon production. The outlook is for modest but steady gains in consumption.

Manmade Fibers: Production (continued)

Olefin which is primarily produced in yarn or monofilament yarn, has much the same performance characteristics as nylon in toughness and strength but is much cheaper to producer. The fiber's use is limited by the difficulty of dyeing it, except in solution form, and by its low melting point. One advantage is its low specific gravity. It will float, which is of value in marine uses. For these reasons, consumption has more than doubled in six years. The main producers are Hercules, Amoco Fabrics and Fibers, and Phillips. Says Richard Murphy of Hercules--"If the economy holds up, we expect that the olefin business will be fantastic."

Polyester in textile filament form has been a sick business since the boom in double-knits ended. Total production of yarn for various industrial uses like tire cord and marine products (such as halliards and sails), has continued to grow. Polyester has an advantage over nylon in those applications where extensibility (and recovery) is not desired as in sailboat halliards. However, none of the producers are especially optimistic about the possiblity of a recovery in textured yarns for knit or woven apparel.

Nylon staple has a long history of steady growth, based on good wear, performance and resilience. The main applications are in home furnishings for upholstery and carpeting. The largest producer, DuPont, forsees continued gains in velvets and prints because "consumers are sold on the performance story". In recent years, DuPont has made major investments in upgrading and increasing plant capacity.

Acrylic staple was originally conceived as the synthetic which most nearly approaches wool...at a much lower price. However, there have been drawbacks--softness, poor tensile strength and resistant to abrasion and low recovery. These make it difficult to position the fiber in competition with other fibers. The main areas of strength are sweaters, fleece for sweat shirts and warm ups and home furnishings fabrics. The fiber has better resistance to degradation by sunlight which gives it a strong advantage for upholstery in outdoor furniture.

The total production of acrylic fiber has been flat for six years. Monsanto, the largest producer, has not been forecasting increased consumption. However, DuPont, also a major producer, plans to promote the fiber as a substitute for rayon. The outlook is for a continuation of current production levels, with, perhaps, modest gains.

Polyester staple is unquestionably the most important manmade fiber used in blend with cotton for apparel. During the years 1982 to 1985, production and shipments did not increase, partly because of a stong consumer swing to all cotton or to reverse blends with cotton predominating. Capacity utilization during the years from 1979 to 1984 was under 80%. In 1987-88, due to a combination of plant closings and growing demand, utilization moved up to 89%. In early 1989, the fiber is in short supply. Both DuPont and Hoeschst-Celanese, the largest producers, have announced plans to increase capacity.

Manmade Fibers: Production (continued)

Capacity Utilization Rates in U.S. Manmade Fiber Plants: Selected Years: 1982-1988

	1988	1987	1986	1984	1982
Cellulosic fibers	86.1	85.3	87.3	74.3	65.2
Yarn+monofilament	87.7	78.3	88.1	72.2	69.6
Staple+tow	85.3	89.0	86.9	75.7	69.3
Noncellulosics	88.5	88.9	85.0	79.0	69.0
Yarn+monofilament	87.4	88.0	84.4	78.7	66.8
Nylon, total	91.0	92.9	89.4	86.0	64.9
Textile	90.3	94.3	90.5	83.8	69.0
Polyester, total	89.2	88.8	82.5	79.8	75.7
Textile	88.9	90.6	83.6	76.1	72.8
Olefin	81.1	80.9	79.8	65.5	56.3
Staple+tow	89.6	89.8	85.6	79.3	71.1
Nylon	82.6	87.2	84.3	79.2	70.0
Polyester	94.9	93.7	85.6	78.7	72.4
Acrylic/modacrylic	91.6	90.8	96.7	83.1	75.0
Olefin+vinyon	74.9	74.7	73.3	74.4	50.9

Source: Textile Economics Bureau: Textile Organon (January, 1989)

Manmade Fibers: Shipments

Total Manmade Fiber Shipments by U.S. Producers: 1983, 1987, 1988
(Millions of pounds & percent change)

	Millions of Pounds			Percent Change	
	1988	1987	1983	1988/87	1988/83
Total manmade	9,164.4	8,938.1	8,129.3	2.5%	12.7%
Yarn + Monofilaments					
Cellulosic yarn*	216.7	191.7	225.8	13.0	- 4.0
Noncellulosics listed:	4,174.4	4,017.9	3,572.7	3.9	16.8
Nylon:	1,738.4	1,693.8	1,497.6	2.6	16.1
Textile**	387.0	378.8	416.9	2.2	- 7.2
Industrial	375.2	373.4	318.1	0.5	18.0
Carpet	976.2	941.6	762.6	3.7	28.0
Polyester:	1,232.1	1,180.3	1,360.9	4.4	- 9.5
Textile**	871.9	841.5	1,053.1	3.6	-17.2
Industrial	360.2	338.8	307.8	6.3	17.0
Olefin	1,203.9	1,143.8	714.2	5.3	68.6

(continued)

Manmade Fibers: Shipments (continued)

Total Manmade Fiber Shipments by U.S. Producers: 1983, 1987, 1988
(Millions of pounds & percent change)
(continued)

	Millions of Pounds			Percent Change	
	1988	1987	1983	1988/87	1988/83
Staple+Tow+Fiberfill					
Rayon	406.5	415.5	377.4	- 2.2%	7.7%
Noncellulosics listed:	4,366.8	4,313.0	3,953.4	1.2	10.5
Nylon (excl. Aramid)	963.9	985.5	911.2	- 2.2	5.8
Acrylic+Modacrylic	590.2	594.4	654.7	- 0.7	9.9
Polyester	2,448.9	2,369.2	2,197.8	3.4	11.4
Olefin+Vinyon	363.8	363.9	189.7	0.0	91.8

* Data for 1983 covers acetate only; 1987 and 1988 includes both rayon and acetate.
**Low denier industrial nylon and polyester are now included with Textile.

Source: Textile Economics Bureau: Textile Organon (March 1989)

Manmade Fiber Shipments, Exports, Imports: 1987, 1988
(Millions of pounds)

	Shipments to Domestic Consumers		Exports		Imports	
	1988	1987	1988	1987	1988	1987
Manmade fiber total	8,505.0	8,341.1	659.9	597.6	350.5	339.5
Cellulosic	569.1	550.5	54.6	57.3	38.0	26.6
Noncellulosic	7,935.9	7,790.6	605.3	540.3	312.5	312.9
By fiber type:						
Yarn+monofilament						
Cellulosic	182.6	166.8	34.1	24.9	17.6	12.8
Noncellulosic	3,913.9	3,803.2	260.5	214.7	116.3	123.9
Staple+tow						
Cellulosic	386.5	383.6	20.5	32.4	20.4	13.8
Noncellulosic	4,022.0	3,987.4	344.8	325.6	196.2	189.0

Source: Textile Economics Bureau: Textile Organon (March 1989)

In the manmade fiber industry, there has been general discouragement over the low rate of growth in consumption in recent years and poor profit margins. This has generally been attributed both to the growing penetration of imports and a trend favoring all cotton and reverse blends with cotton as the predominant fiber. From the table above, it is apparent that imports in fiber form have hardly been a factor. However, the amount of fiber produced offshore which is incorporated in apparel being imported is decidedly important. To some extent, 807 programs are helping the domestic fiber situation.

Manmade Fibers: Shipments (continued)

In 1987/88, the rate at which cotton consumption was increasing declined. Trade reports attribute this drop to poor business being done in jeans. According to the Cotton Council, men's trousers and jeans are the largest end use for cotton. Jeans alone account for about 10% of domestic cotton consumption. In early 1989, there are indications that demand for jeans (and denim) is improving.

Shipments of Specified Manmade Fibers By U.S. Producers To Domestic Consumers: 1987, 1988
(Millions of pounds)

	1988	1987	% Change 1988/87
Nylon, total	2,517.3	2,520.3	- 0.1%
Filament	1,572.4	1,554.3	1.2
Staple	944.9	966.0	- 2.2
Acrylic staple	421.1	479.3	-12.1
Olefin	1,184.1	1,131.5	4.6
Polyester	3,469.2	3,314.4	4.7
Filament	1,157.4	1,092.4	5.9
Staple	2,311.8	2,201.0	5.0
Other staple	344.2	341.1	0.9

Source: Textile Economics Bureau: Textile Organon, (March 1989)

Value of Manmade Fiber Shipments By U.S. Producers: 1982, 1984, 1985, 1986
(Millions of dollars)

	1986	1985(r)	1984(r)	1982(r)	% Change 1986/82
Total reported	$ 9,472.3	$8,970.1	$9,674.7	$ 8,264.6	14.6%
Cellulosic (rayon & acetate)	1,141.2	991.5	1,103.7	1,114.8	2.4
Noncellulosic fibers, total	8,330.1	7,978.6	8,571.0	7,149.8	16.5
Nylon*	2,424.8	2,230.8	2,662.8	1,891.1	28.2
Acrylic & modacrylic*	555.8	525.4	562.2	595.5	- 6.7
Polyester*	2,865.1	2,905.1	3,147.3	2,679.1	6.9
Other*	707.0	662.2	586.6	445.9	58.6
Producer textured	1,753.2	1,626.8	1,581.3	1,519.7	15.4
Type not specified	24.2	28.2	30.9	18.6	30.1

(r) revised
* Except producer textured.

Source: U.S. Bureau of the Census: 1986 Annual Survey of Manufactures-Value of Product Shipments M86(AS)-2

FIBER & YARN PRODUCTION/SHIPMENTS/CONSUMPTION

Total Fiber Consumption

Reported Fiber Consumption By U.S. Textile Mills: 1982-1988
(Millions of pounds)

Year	Total	Cotton	Manmade Fibers	Wool	Silk
1988	12,658.3	3,360.0	9,150.3	145.0	3.0
1987	12,782.1	3,696.0	8,938.1	142.8	3.0
1986	11,916.0	3,297.5	8,454.0	164.5	3.0
1985	10,969.2	2,796.0	8,035.0	134.7	3.0
1984	10,623.9	2,668.2	7,789.5	163.2	3.0
1983	10,954.7	2,795.7	7,994.5	162.5	2.0
1982	9,263.9	2,478.9	6,653.5	129.5	2.0

Sources: Textile Economics Bureau: Textile Organon, (January 1989)
and
U.S. Dept. of Agriculture: Cotton Wool Outlook Report
(September 1988)

Cotton consumption rose 49% from 1982 to 1987, but then declined by 9% in 1988 as compared with 1987. For this period from 1982 through 1988, cotton consumption increased by 35.5%.

Per Capita Consumption of Fibers in the U.S.: 1980, 1985, 1986, 1987
(In pounds)

Year	Total*	Cotton	Wool	Rayon/Acetate & Other Manmade	Flax & Silk**
1987	70.5	23.9	1.6	42.1	ng
1986	65.3	20.2	1.6	40.7	ng
1985	57.9	17.7	1.5	38.7	.02
1980	49.9	14.6	0.9	34.4	.01

*Excludes nontextile glass fiber.
**Mill use
ng neglibible

Source: U.S. Department of Agriculture:
Cotton and Wool Situation and Outlook Yearbook
(CWS-53) (September 1988)

Total Fiber Consumption (continued)

The major end uses of fiber consumption include apparel, home furnishings, and industrial/specialty products. Apparel's share of fiber consumption has remained at about 37% since the early seventies, whereas the share held by home furnishings grew from 31% to 38%, according to the Textile Economics Bureau.

The National Cotton Council of America also monitors textile fiber consumption by end use in "Cotton Counts Its Customers". Their data for apparel is in agreement with the Textile Economics Bureau but apportions 45% of fiber consumption to home furnishings uses. Fiber consumption for industrial applications has tended to decline because of the substitution of non-textile products like plastic film, for items traditionally made from textile fiber.

Yarns

Information on U.S. production of spun and textured yarns is reported annually by the U.S. Census Bureau. The data indicates that spun yarn production has been growing slightly from year to year, despite the penetration of imports. The main reasons for the growth in spun yarns have been the popularity of fleece in sweat shirts and warm-ups, the steady growth in importance of knit wear for sweaters, T-shirts and other sportswear items. At the same time there has been a sharp decline in consumption of textured filament yarns.

Reduction in U.S. yarn spinning, as in the other branches of the textile industry, has been acute. Since 1982, more than 300 mills have closed, according to the ATMI, most of which operated spinning machinery. Despite the decline in the number of plants and plant employment, production has been growing because of the replacement of ring spindles with open end rotors. Moreover, improvements in technology, have made it feasible to produce finer counts of spun yarn on open end equipment. This too, is leading to greater productivity. The following figures on production of textured and spun yarns in the U.S. are compiled by the Census Bureau through annual surveys covering all known producers of textured and spun yarns.

Textured yarns are produced both by fiber producers (known as "producer textured" yarns) and by independent throwsters. By far the larger portion of textured yarns are "producer textured" mainly for such products as rugs and carpets.

Spun yarns are produced both in plants which are integrated with weaving machinery and in plants whose main business is spinning yarns for use by others. To an important extent, spun yarns produced in independent spinning mills are used by knitters.

Explanation of terms:

FOR OWN USE: Produced for consumption in the same mill or in other plants under the same or affiliated ownership.

ON COMMISSION: produced from yarns owned by other companies not under the same ownership or affiliated with the yarn producing plant.

FOR SALE: Produced for sale to other companies not affiliated with the yarn producing company.

FIBER & YARN PRODUCTION/SHIPMENTS/CONSUMPTION

Yarns: Textured

Textured yarn production in 1987 amounted to 2,399 million pounds. According to the Census Bureau, production was virtually flat for the years from 1985 to 1987. Nylon carpet and rug yarn has remained on a high plateau, growing slightly. Polyester textured yarn has experienced serious declines since 1982. This has been a problem area for the industry. Rayon/acetate texturing has been a small specialty business.

Textured Yarn Production in the U.S.: 1982, 1986 & 1987
(Millions of pounds)

	1987			Total		% Change
	Total	For Sale	For Own Use Or on Comm.	1986	1982	1987/82
Textured, bulked, crimped filament Yarn total	2,399	1,793	606	2,273	2,137	12%
Nylon	1,490	1,185	305	1,401	999	49
Polyester	641	371	270	638	962	-33
Rayon, acetate & other	258	na	na	235	176	47

na not available

Source: U.S. Bureau of the Census:
Current Industrial Reports (MA22F.1)

Distribution of Textured Yarn By Fabric Forming System: 1987

	Total	Weaving	Knitting	Carpet & Rug	Other
Nylon	1,490	504.4	89	1,355	6
Polyester	641	390	230	1	(d)
Rayon/Acetate	ng	--	--	--	--
Other (olefin, etc.)	268	(d)	(d)	165	(d)

ng negligible (d) figure not given to avoid disclosure.

Source: (See above table)

Yarns: Spun

In 1987, spun yarn production totaled 6.8 billion pounds, an increase of 28% over 1982. Cotton increased by 38%, as compared with an increase of only 7.6% for polyester-cotton, the main competing fiber. This tends to support the growing penetration of all cotton, as claimed by Cotton, Inc. The 100% nylon increase is associated largely with home furnishings and industrial applications.

(The lower half of the following table documents the very important increase in consumption of knitting yarns.)

Yarns: Spun (continued)

Spun Yarn Production in the U.S.: 1982, 1986, 1987
(Millions of pounds)

Total & Selected Fiber Types:	1987			Total		
	Total	For Sale	For Own Use Or On Commission	1986	1982	% Change 1987/82
Spun yarns, total	6,768	2,264	4,504	6,154	5,284	28%
Selected yarns:						
Cotton	2,849	884	1,965	2,485	2,055	38
Cellulosic	195	87	108	175	139	40
Wool	136	46	90	137	120	13
Noncellulosic	3,587	1,246	2,340	3,357	2,956	21
100% acrylic	281	220	61	294	265	6
100% polyester	476	288	188	395	337	41
Blends: chiefly poly/cotton	1,473	267	1,206	1,395	1,369	8
100% nylon	860	279	582	846	581	48

Source: U.S. Bureau of Census:
Current Industrial Report (MA22F.2)

Spun Yarn Distribution by Fabric Forming System
(Millions of pounds)

	1987			Total		
	Total	For Sale	For Own Use Or On Commission	1986	1982	% Change 1987/82
Weaving yarn excl. carpet	3,631	362	3,269	3,397	3,249	11.8%
Knitting	1,844	1,366	478	1,561	1,158	49
Carpet/Rug	1,058	383	676	961	709	49
Other	166	93	73	165	168	na

na not available

Source: See above table.

Distribution of Major Fibers in Spun Yarns by Fabric Forming System: 1987

	Total	Weaving	Knitting	Carpet	Other
Cotton	2,849	1,941	811	0.4	--
Cellulosic (rayon/acetate)	195	170	20	(d)	--
Wool	136	97	16	(d)	--
Noncellulosic	3,587	1,424	998	1,034	131
100% acrylic	281	40	211	1	29
100% polyester	476	161	151	145	19
Blends: mainly poly/cotton	1,473	940	505	145	143
100% nylon	860	28	(d)	806	--

(d) figures not stated to avoid disclosure.

Source: See above table.

PRODUCTION OF TEXTILES & APPAREL

The Board of Governors, Federal Reserve System, compiles monthly indexes measuring production in the U.S. in major industry classifications. The March 1989 textile mill index, seasonally adjusted, was 116.3 (1977-100), gaining 0.5% over the index a year earlier (115.8). Trends in production of specific types of manmade fibers have been outlined in previous sections of this FACT FILE.

The FRB index for apparel production in 1988 averaged only 1.7% over the previous year. However, considering the deep penetration by imports which has been taking place, any advance is remarkable.

Production Levels in the Fiber/Textile Apparel Complex
(Annual average indexes, 1984-1988, based on 1977-100)

	1988	1987	1986	1984	% Change 1988/84
All U.S. manufacturing*	142.7	134.6	129.1	123.4	15.6%
Synthetic fibers	106.2	104.3	98.5	94.1	12.9
Textile mill products	116.3	115.8	113.2	104.2	11.6
Fabrics	104.0	106.8	110.3	99.1	4.9
Cotton fabrics	120.9	129.5	130.6	101.7	18.9
Manmade fiber fabrics	92.1	93.3	101.5	99.1	-7.1
Knit goods	117.3	110.6	106.2	100.4	16.8
Hosiery	165.1	155.4	155.0	143.0	15.5
Knit apparel	103.6	97.8	92.3	88.2	17.4
Carpeting	158.2	157.1	148.7	127.4	24.2
Yarns & misc. textiles	124.8	127.1	120.2	109.8	13.7
Apparel & other textile products	109.1	107.4	103.2	102.7	6.2

Source: Board of Governors, Federal Reserve System (G.12.3-February 1989)

Based on capacity and capacity utilization rates available from the Federal Reserve Board in the early months of 1989, the textile mill products industry was operating at slightly lower rates than a year ago. For the year 1987, the industry's capacity utilization rate was at a eight year high, at 92%. For 1988, the preliminary average rate was 90.7%--still very high as compared with traditional experience.

Average Annual Capacity Utilization Rate: 1982-1988
For Textile Mill Products

1988(p)	1987	1986	1985	1984	1983	1982
90.7	92.0%	91.4%	84.0%	85.4%	83.2%	73.6%

(p) preliminary

Source: Board of Governors, Federal Reserve System (G.3(402)-March 1989)

PRODUCTION OF TEXTILES & APPAREL

Broadwoven Gray Goods

Total production of broadwoven fabrics in 1987 increased by 6% in 1986. Cotton broadwoven goods advanced by 9% over 1986, while chiefly manmade fiber fabrics inched ahead by 4%. The rate of advance of "chiefly cotton" fabrics continued a similar growth over manmade fabrics in the previous year. Chiefly wool fabrics were up by 20% in 1987 over 1986.

The Census Bureau data is based on a survey covering all companies manufacturing broadwoven fabrics (gray) in the U.S., except very small firms (generally employing fewer than 5 employees). Approximately 425 plants are included.

Summary of Production of Broadwoven Fabrics: (Gray) 1983, 1985-1987
(Millions of square yards)

	1987	1986	1985	1983
Total	16,670.7	15,711.3	15,321.0	16,339.1
Cotton, chiefly cotton, fabrics	4,772.1	4,364.1	3,920.5	4,192.1
Manmade fiber fabrics, silk and manmade/wool blends	11,234.3	10,764.2	10,766.6	11,460.7
Chiefly wool fabric	168.9	139.5	138.4	143.6
Tire cord and tire fabrics	495.4	443.5	495.5	542.7

Source: U.S. Bureau of the Census:
Current Industrial Reports-Summary for 1987 (MQ22T)

Following are excerpts from the complete Census Bureau report covering production of fabrics of major interest.

Production of Selected Gray Goods Fabrics: 1987

Selected fabrics:	Thousands of Square Yards
Manmade fiber fabrics:	
85% or more filament	5,218.5
Rayon/acetate	557.4
Polyester & nylon filament	4,661.1
85% or more spun yarn except wool blends & excluding yarn dyed fabrics	4,597.5
Yarn dyed fabrics	1,336.5
Blue denim, total	783.8
More than 50% cotton	752.8

(continued)

Broadwoven Gray Goods (continued)

Production of Selected Gray Goods Fabrics: 1987
(continued)

	Thousands of Square Yards
Pile fabrics (chiefly cotton or manmade)	538.6
Corduroy	86.4
Velvets, plushes	52.1
Terry toweling, terry cloth	400.0

Source: U.S. Bureau of the Census: Current Industrial Reports (MQ22T-87)

Although total production of all fabrics increased by 6% in 1987, the improvement was not experienced in all fabric categories. Print cloth fabrics were well up over the previous year, a trend which has continued through the first half of 1988. Bed sheeting production also showed a strong advance continuing into 1988, as did poplins and broadcloth. Denim production has recovered from the lows experienced in 1986 but total production remains somewhat below previous levels.

Dyeing & Finishing

The nation's finishing plants and textile mills bleached, dyed or printed 6,971 million linear yards of broadwoven goods in 1987. This was slightly below the 1986 total and 2.1% below 1982.

Cotton yardage showed a small gain over 1986 and was 10.3% over 1982. Manmade fiber fabrics declined slightly in 1987 and were 8.9% below 1982.

Cotton & Manmade Fiber Finished Broadwoven Fabrics
By Fiber Type: 1982, 1986, 1987
(Millions of linear yards)

	1987	1986	1982	% Change 1987/1982
Cotton & manmade fiber goods finished, total	6,971	7,029	7,118	- 2.1%
Cotton finished fabrics	2,779	2,749	2,520	10.3
Bleached & white finished	1,185	1,234	1,221	- 3.0
Dyed & finished	1,083	1,027	861	25.8
Printed & finished	511	487	438	16.8
Manmade fiber finished fabrics	4,192	4,281	4,599	- 8.9
Bleached & white finished	879	769	1,088	-19.2
Dyed & finished	2,193	2,466	2,480	-11.6
Printed & finished	1,121	1,045	1,031	7.3

Source: U.S. Bureau of the Census: Current Industrial Reports-Finished Broadwoven Fabric Production (MA22S)

Dyeing & Finishing (continued)

Fabrics Finished For Crease Resistance of Wash-Wear Properties
(Millions of linear yards)

	1987	1986	1985	1984
Total fabrics	1,029	1,031	967	993
Cotton broadwoven fabrics	319	358	215	180
Manmade fiber broadwoven fabrics	710	673	752	814

Source: U.S. Bureau of the Census: Current Industrial Reports-Finished Broadwoven Fabric Production (MA22S)

Prints in apparel are always around to some extent, especially in the Spring season. Certain dress houses make a specialty of prints; buyers associate these cutters with prints and seek them out. However, general fashion acceptance of prints tends to be cyclical. The years 1987 and 1988 were good print years; early 1989 seems to be flat.

The big issue is in the finishing of all fabrics, whether printed or dyed, is the need to operate effectively with "quick response" programs. Gone are the days when the big finishing plants could expect to grind out forty thousand yards of single print. The emphasis today is on short runs and quick turnaround for both prints and solid colors. This has placed growing emphasis on automatic silk screen as opposed to intaglio roller printing.

Another development, related to the need for quick response, is garment dyeing. The process has been used in Europe for some years, and in the U.S. by hosiery, sweater and area rug manufacturers. In this case the apparel manufacturer, instead of stocking up on batches of dyed fabric, makes up his garments in the greige and has them dyed to fill his orders. This development has been mainly taking place with such garments as jeans, knit wear (like the Benetton line), sweat shirts and warm-ups, skirts and jump suits. This process can take place in the manufacturer's own plant or on commission by specialists. Such garment dyeing would not show up in the yardage being processed in regular finishing plants. However, the big textile finishers have the technology and ability to maintain quality control. Therefore, they may be able to establish themselves in this new business.

In the home furnishings field, Teflon-finished fabrics are of growing interest to the trade as a stain protector. A problem area in finishing, has been the control of noxious odors associated with finishing fabrics for crease resistance and wash/wear properties.

Knit Textiles & Knit Apparel

It is often argued that most of the growth in apparel consumption has been taking place in the knit sector. The underlying reasons are that knitting is a more efficient way to convert yarn into fabric and into finished apparel. The systems are less labor intensive; less energy is required. Knitting also lends itself more readily to the integrated manufacture of finished apparel. However, knit apparel has been deeply penetrated by imports.

Knit Textiles & Knit Apparel (continued)

The industry is divided into two major sectors: (1) knit fabric which is sold to cutters for fabrication into garments; and (2) vertical knitwear production where the knitting and garment manufacturing is carried on by the same enterprise. In integrated knit apparel, there are two sub-divisions: knit outerwear mills and knit underwear mills. (The knit underwear mills have tended to expand their production into simple types of outerwear--like knit sport shirts--so the distinction is somewhat blurred.)

Imports have been mainly concentrated in the knit outerwear sector, with relatively little importing of knit fabric taking place. The major areas which have been penetrated by knit apparel imports have been sweaters, knit sport shirts and knit blouses. Domestic producers are fleecewear used in sweat shirts and warm-ups have been reasonably successful in containing imports.

The latest available figures on knit fabric production from the U.S. Census Bureau are for the year 1987. Total output for 1987 was 40.6% over the 1982 level, and 3.7% over 1986.

Summary of Knit Fabric Production: Selected Years 1982-198/
(Millions of pounds)

	1987	1986	1985	1982	% Change 1987/82
Knit fabrics, total	1,841	1,757	1,496	1,309	40.6%
Warp knit fabric	363	360	345	289	25.6
Tricot, simplex, milanese	226	237	258	239	- 5.4
Raschel and all other warp	137	123	87	50	174.0
Weft knit fabric	1,478	1,397	1,151	1,019	45.0
Single circular knit	918	850	828	703	30.6
Double knit and interlock	257	243	213	229	12.2
Rib knit	135	126	110	88	53.4

Source: U.S. Bureau of the Census: Current Industrial Reports-Knit Fabric Production MA22K(87) Series

In the warp knit area, the trend for tricot has been flat or down for a number of years, but production of raschel and other warp knit fabrics has advanced. In the weft knit area, single circular knits have moved ahead each year, increasing 30.6% over 1982. Double knits have been quite poor, although interlock production has grown.

Narrow Fabrics

Production of narrow fabrics in U.S. plants is reported annually by the Census Bureau. The latest figures currently available are for the year 1987 when the total value of U.S. manufacturers shipments was placed at $808 million, about the same as in the two previous years.

Narrow Fabrics (continued)

Summary of Value of Shipments, Including Interplant Transfers of Woven & Braided Narrow Fabrics: 1987, 1986, 1984 & 1982
(In thousands of dollars)

	1987	1986	1984	1982
Woven & braided narrow fabrics	808	784	849	723
Woven narrow fabrics	666	639	686	573
Elastic	195	181	185	173
Nonelastic	471	457	501	400
Braided narrow fabrics	142	145	154	144
Knitted narrow fabrics	44	45	50	43

Source: U.S. Bureau of the Census: Current Industrial Reports-Narrow Fabrics MA22G(87)

Nonwoven Fabrics

The nonwoven fabric industry appeared on the scene in the late 1950's amid fan-fare and inflated expectations. The idea was to eliminate the tedious (and expensive) processes of yarn spinning, weaving, finishing, etc. Fabrics of the future would be poured, or fibers would be air laid or wet laid on high speed paper making machinery or bonded or entangled. A TV show featured a model in nonwoven dress; "Wear it once and throw it away!". Analysts predicted that the industry would double every three years.

A degree of success has indeed come to pass--the hard way--slowly. In 1973, a Current Industrial Report estimated industry volume at $450 million. After this, the industry discontinued its support for the annual report, and hard data has been sparce. Information from the 1982 and 1977 Censuses of Manufactures stated as follows:

Nonwoven Fabric Industry Production
(In millions of dollars)

	1982	1977	% Change 1982/77
Nonwoven Fabrics-Total	$1,263	$782	61%
Laminated wet laid	344	282	21
Spun bonded, dry laid, needle punched or other	906	464	95
nsk	13	36	--

nsk not specified by kind

Source: 1977, 1982 Census of Manufactures

Nonwoven Fabrics (continued)

Data from the Annual Surveys of Manufactures shows recent industry total volume as follows: 1986--$1,988.8; 1985--$1,981.9; 1984--$1,976.0 and 1983--$1,772.1. Figures in millions of dollars.

Disposable non-wovens are mostly produced on the wet laid system which is related to the paper making processes. A typical disposable is a Kleenex tissue, which has been bonded to a nylon scrim. Such products account for about a third of the industry's volume. The nondisposable nonwovens are produced by innumerable processes such as needle punching or random laid fibers deposited by an air bridge. These are used in various geostatic products such as linings for irrigation ditches or pond bottoms. In general, nonwovens have not replaced standard apparel.

VALUE OF PRODUCT SHIPMENTS

Preliminary estimates on the value of shipments of major classifications in the fiber/textile/apparel complex in 1988, in terms of current dollars and in constant dollars, have been compiled by the International Trade Administration. Summary information on the value of exports and imports is also included in the ITA report (1989 U.S. Industrial Outlook).

Shipments in 1988 Compared With 1987

	Percent Change		Compound Annual Change	
	1988/87	1987/86	1972-1986	1981-1986
Cellulosic manmade fibers				
Current $	4.9%	6.0%	5.9%	-1.5%
Constant (1982$)	1.2	7.3	-1.4	-6.4
Noncellulosic manmade fibers				
Current $	4.8	6.0	7.2	0.2
Constant (1982$)	1.2	7.3	4.2	1.3
Textile mill products				
Current $	3.7	4.2	5.0	2.0
Constant (1982$)	1.2	3.1	0.4	0.9
Yarn mills				
Current $	1.3	9.0	6.1	3.0
Constant $	-5.9	7.0	1.2	4.3
Broadwoven fabric mills				
Current $	4.8	6.6	4.9	-1.7
Constant (1982$)	1.2	4.5	-0.6	-2.4
Apparel & other mill products				
Current $	3.8	5.2	5.4	3.1
Constant (1982$)	0.9	3.1	0.7	0.9

Source: International Trade Administration:
1989 U.S. Industrial Outlook.

VALUE OF PRODUCT SHIPMENTS

The value of shipments of specific products made by all manufacturers, regardless of industry classification, has been reported in detail by the Census Bureau. The following table summarizes data for major product groupings, 1982-1986.

Value of Shipments for Specified Products By All Producers: 1982, 1984, 1985, 1986
(Millions of dollars*)

	1986	1985	1984	1982
Manmade fibers	$15,317	$14,631	$16,047	$13,430
Cellulosic manmade fibers	1,141	992	1,104	1,115
Organic fibers, noncellulosic*	8,330	7,979	8,571	7,150
Nylon, except producer-textured	2,425	2,231	2,663	1,891
Acrylic, modacrylic, except producer textured	556	525	562	596
Polyester, except producer-textured	2,865	2,905	3,147	2,679
Textile mill products				
Cotton broad woven goods	4,148	3,898	4,068	3,635
Weaving mills, manmade fiber and silk products	8,075	8,105	9,129	7,820
Wool broad woven fabrics	864	930	961	834
Narrow fabrics	1,044	990	961	826
Hosiery	3,246	3,057	3,202	2,750
Knit outerwear	3,242	3,220	3,348	3,154
Knit underwear mills	1,026	986	920	767
Circular knit fabrics	2,476	2,077	2,274	2,495
Warp knit fabrics	1,720	1,720	1,731	1,568
Knit gloves & other knit products, n.e.c.	159	168	159	134
Finishing plant products:				
Cotton fabrics	973	891	841	768
Manmade fiber, silk	3,434	3,119	3,295	2,768
Other	885	910	1,041	921
Carpets & rugs	8,371	7,670	7,155	5,370
Yarn & thread mills	8,883	8,416	8,789	7,385
Nonwoven fabrics & products	1,989	1,982	1,976	1,659
Misc. textile goods	3,636	3,842	4,137	3,511
Apparel**				
Specified men's & boys' wear:	16,166	15,898	15,901	14,711
Suits, coats	3,033	3,106	3,131	2,933
Shirts, nightwear	3,606	3,605	3,395	3,118
Underwear	450	442	464	426
Neckwear	306	307	324	310
Separate trousers	2,204	2,085	2,205	2,170
Work clothing	4,575	4,424	4,553	4,023
Hats & caps (incl. women's, children's)	486	470	484	417
Type not specified	1,506	1,458	1,346	1,378

(continued)

Value of Shipments for Specified Products By All Producers:
1982, 1984, 1985, 1986
(Millions of dollars)*
(continued)

	1986	1985	1984	1982
Specified women's wear:	$21,502	$20,953	$21,614	$21,750
Blouses, waists	4,059	3,833	3,969	4,258
Dresses	5,415	5,177	4,896	4,535
Suits & coats	3,488	3,404	3,760	4,289
Outerwear, n.e.c.	4,780	4,841	5,263	5,160
Foundations, etc.	885	714	715	667
Underwear (incl. children's)	2,429	2,503	2,525	2,356
Millinery	96	105	105	88
Furs (incl. men's)	351	377	381	398
Specified children's wear:				
Dresses & blouses	1,247	1,267	1,339	1,443
Coats & suits	154	167	198	211
Outerwear, n.e.c.	1,323	1,262	1,263	1,195
Men's, women's, children's, n.e.c.				
Fabric dress & work gloves	213	227	217	206
Robes & dressing gowns	445	421	444	416
Waterproof outergarments	290	330	409	430
Leather & sheeplined	143	147	189	207
Apparel belts	437	443	476	474
Apparel accessories, n.e.c.	218	304	302	243
Home Textiles**				
Curtains & draperies	1,427	1,268	1,249	1,008
Sheets, towels, etc., not made in weaving mills	3,969	3,905	3,668	3,299
Misc. textile products not made in textile mills	7,910	7,670	7,665	5,796

* In current dollars; not adjusted for inflation.
**Items made in knitting mills are not included.
n.e.c. not elsewhere classified

Source: U.S. Bureau of the Census:
1986 Annual Survey of Manufactures M86(AS)-2

PRICE TRENDS

Producer Prices (Factory Level)

Factory prices for textile products have been held down for several decades because of competition from lower-cost imports. With the devaluation of the dollar resulting in higher prices on imports from areas like Europe and Japan, there was some expectation that there would be an increase in domestic prices. To a limited extent,this has happened as shown in the table below. This data from the Bureau of Labor statistics is based on the year 1982. While producer prices have advanced over the six year period, the rate has been far slower than for most other manufactured products.

Producer Price Indexes: December 1988 & Annual Average 1987
(1982 average = 100)

	December 1988	% Change 1988/87	Annual Average 1987
Textile products & apparel	107.0	3.3%	105.1
Selected textile/apparel items:			
Synthetic fibers	93.6	6.5	91.8
Processed yarns & threads	106.9	1.7	103.8
Gray fabrics	111.1	3.3	107.2
Finished fabrics	106.2	4.3	104.2
Broadwovens	111.6	4.4	104.8
Knits	104.2	1.3	101.9
Apparel	109.9	3.0	108.4
Women's wear	109.5	3.5	108.4
Men's & boys' wear	110.3	3.4	108.6
Girls', children's, infants'	110.1	-1.6	106.7
Home textiles	101.9	2.6	101.4

Source: U.S. Bureau of Labor Statistics:
Producer Price Indexes

Import Prices

The U.S. import price index provides a direct measurement of price changes in imports. The comparison between domestic producer prices, shown above and import prices is of special interest because of the sharp devaluation of the dollar during 1987 and 1988.

During the years 1987 and 1988, the prices of textiles and apparel imported into the United States showed sharp rises. The import index is based on the year 1985 (instead of 1982, as in the table above). As compared with the base year, the textile sector advanced to 118.6 by Dec. 1987 and to 120.1 in Dec. of 1988. Import prices of apparel also advanced during the two years, but the increases were equally spread between the two years. Details appear in the table which follows.

PRICE TRENDS

Import Prices (continued)

U.S. Import Price Indexes for Textile & Apparel: December 1987, 1988
(Base year 1985-100)

	Index		% Change
	Dec. 1988	Dec. 1987	December 1988/87
Textiles*	120.1	118.6	1.3%
Woven cotton fabric (cif)	122.3	126.4	-3.2
Woven manmade fabric (cif)	132.9	129.6	2.5
Misc. woven fabric (cif)	118.7	115.0	-3.2
Special textile fabrics & related products (cif)	137.3	131.1	4.7
Articles: chiefly textile	100.4	100.2	0.2
Apparel*	117.2	110.1	4.4
Selected types:			
Outerwear: men's, boys' (cif)	125.8	116.8	7.7
Outerwear: women's, girls', and infants'	112.5	106.3	5.8

cif cost, insurance, freight. Duties are not included.
* Includes items not separately listed.

Source: U.S. Bureau of Labor Statistics:
U.S. Import & Export Price Indexes

Consumer Prices: Apparel & Textile Housefurnishings

Retail prices for apparel and related commodities, not including footwear, in December 1988 compared with December 1987 rose 4.6%, according to the Consumer Price Indexes compiled by the Bureau of Labor Statistics. This compares with a 3.2% rise in the price level averaged for all commodities, excluding food. For the year 1988, apparel prices averaged a 4.4% gain compared with 1987.

Prices of textile housefurnishings in December 1988 were up 5.8% compared with a year earlier. For the year, prices averaged 3.8% higher than in 1987.

Consumer Price Index for all Urban Consumers:
Apparel & Textile Housefurnishings
(1982-84=100)

	Index: December		% Change	Index: Annual Av.		% Change
	1988	1987	1988/87	1988	1987	1988/87
Apparel commodities, excluding footwear*	116.8	111.7	4.6%	114.4	109.6	4.4%
Men's & boys'	117.3	110.7	6.0	113.4	109.1	3.8
Women's & girls'	116.5	112.6	3.5	114.9	110.4	4.1
Infants' & toddlers'	117.3	114.5	2.4	116.4	112.1	3.8
Textile housefurnishings	114.3	108.0	5.8	114.0	109.8	3.8

* Includes luggage, jewelry, watches.

Source: U.S. Bureau of Labor Statistics

FOREIGN TRADE

The flood of textile and apparel imports has grown steadily and inexorably for a quarter of a century. Imports come into the United States as textile fiber, yarn, fabric and apparel. However, imports of fiber and yarn have been comparatively minor, averaging well under 10% of domestic consumption. The bulk of the imports have come in the form of textiles and apparel. The situtaion is shown in the table below which covers the 10 year period from 1978 through 1988.

Imports of Textiles & Apparel: 1978-1988
(Figures in millions of square yards or equivalents of millions of dollars)

	Textiles		Apparel		Total	
Year	Mils. of Sq. Yds.	Mils. of Dollars	Mil. of Sq. Yds.	Mils. of Dollars	Mils. of Sq. Yds.	Mils. of Dollars
1988	6,536	$ 6,748	6,314	$ 22,877	12,850	$ 29,625
1987	7,206	6,927	6,531	21,960	13,727	28,887
1986	7,008	6,151	5,867	18,554	12,875	24,705
1985	5,677	5,274	5,117	16,056	10,794	21,330
1984	5,500	4,874	4,707	14,513	10,207	19,387
1983	3,832	3,460	3,875	10,292	7,707	13,752
1982	2,553	3,000	3,382	8,703	5,935	11,703
1981	2,639	3,250	3,136	8,008	5,775	11,258
1980	2,000	2,676	2,884	6,849	4,884	9,525
1979	1,967	2,399	2,671	6,291	4,638	8,690
1978	2,835	2,400	2,905	6,108	5,740	8,508

Source: U.S. Department of Commerce, FT-135, FT-140;
SIC Classifications 65 & 85
Table prepared by ATMI

The penetration of textile and apparel imports has been documented and resisted by the ATMI, the AAMA and the political establishments in the textile and apparel producing states. However, it has been difficult to obtain effective legislation to control such imports.

Early efforts to limit imports focused on negotiating restraining agreements with the major exporting countries. Practically all of them are now covered. Such agreements are based on the amount of square yards of fabric which can be imported or "square yard equivalents" in the case of apparel. The effect of this strategy was to motivate the exporting countries to concentrate on apparel because of the greater "value added". This is clear in the table above. Imports of textiles have grown but at nowhere near the rate of made-up apparel. Moreover, the dollar value of apparel imports is more than three times that of textiles.

During the long period of encroachment of imports on the domestic market, many leading factors in the U.S. industry have had to come to terms with the realities faced. This has taken various forms. Large U.S. mills became major importers of foreign fabric, which they processed in their own finishing plants, then merchandised and distributed them to domestic cutters.

FOREIGN TRADE

Today major U.S. apparel manufacturers are producing growing amounts of products off-shore or in 807 programs. U.S. retailers, too, have become a major factor in sourcing apparel production and are believed to account for 50% of the apparel being brought in. Since so many U.S. companies have found it profitable to make such accommodations, opposition to imports by the business community is by no means universal.

Impact of Major Apparel Imports on Domestic Consumption: 1987
(Figures in thousands of dozens)

	Domestic Manufacturers Shipments	Exports (subtract)	Imports	Apparent Consumption	% Imports To Apparent Consumption
Men's & boys' Wear:					
Sweaters	2,439	62	5,511	7,888	69.9%
Shirts	62,217	3,865	48,544	101,665	47.7
Trousers, slacks, shorts & jeans	43,399	3,869	20,379	60,670	33.6
Coats					
Suit type	1,566	191	725	2,100	34.5
Other coats	3,788	433	5,470	8,825	62.0
Suits	1,036	10	441	1,467	30.1
Swimwear	787	467	935	1,255	74.5
Underwear					
Knit	68,321	328	5,729	73,722	7.8
Woven	5,277	596	691	5,372	12.9
Pajamas & other nightwear	2,401	464	1,400	3,338	41.9
Women's, Girls' & Infants' Wear					
Sweaters	6,366	26	22,565	28,905	78.1
Dresses	16,648	775	6,170	22,043	28.0
Blouses & shirts	48,188	2,676	62,718	108,230	58.0
Skirts	9,542	448	9,705	18,799	51.6
Coats & jackets	3,800	218	7,003	10,585	66.2
Slacks & shorts	31,002	2,000	41,918	70,920	59.1
Suits	590	149	691	1,132	61.0
Swim suits	3,856	104	1,418	5,170	27.4
Underwear	65,644	2,765	19,195	82,374	23.7
Pajamas	16,290	980	3,946	19,256	20.5
Brassieres & allied	16,879	8,718	15,311	23,472	65.2
Girdles, corsets & allied	3,574	272	1,184	4,486	26.4

Source: U.S. Department of Commerce: Current Industrial Report-Apparel Survey, 1987

FOREIGN TRADE

The total impact of imports on domestic consumption has been variously estimated by ATMI at 52% and in the low to upper 30%'s by two consultants who specialize in the apparel industries. A difficulty in making such a judgement is that apparel varies in size, cost and amount of fabric consumed so that any overall figure tends to be meaningless. However, certain items have been more deeply penetrated than others.

The deepest penetration of imports occurred in men's sweaters, shirts, pajamas & nightwear, women's blouses, skirts, sweaters, slacks, shorts and brassieres.

The least import penetration has occurred in men's underwear, suits and in women's dresses, and pajamas.

Those apparel items which have been most deeply penetrated have been products which are standardized, and are labor intensive with high value added.

A characteristic of items which have not been deeply penetrated are those which are made in great variety, such as women's dresses. Here the style risks and costs of inventorying and shipping a large number of items makes it impractical for the exporters.

Another group of items which have not been deeply penetrated are those which are produced by highly efficient machinery, in enormous quantities, with relatively little labor input. Examples: men's & women's underwear. Fleece garments, too, fall in the same category. The use of open end spinning, high speed knitting machinery and very efficient manufacturing methods has the effect of hardening the target, making the items comparatively unprofitable for off-shore producers.

Current Strategies for Combating Imports

In an attempt to combat the rise of imports, three different strategies are being used. The first of the three are the 807 programs, which is the act of cutting domestic fabric in the U.S. and shipping it to the Caribbean basin for fabrication. Such programs are reported to have consumed from 500-6000 thousand square yards of fabric in 1987. In the table which follows, some indication is given of the types of products which have benefitted from the 807 programs. The data comes from the 1986 Apparel Survey.

Effect of Major 807 Production Programs on Woven Fabric Consumption: 1986

	Av. Sq. Yds. Per Doz.	Domestic Fabrics used Mils. sq. yds	807 Fabric Usage Mils. sq. yds	Fabrics used in Imports	807 Fabric usage as % of imports
Men's & boys' wear					
Shirts	24.0	1,389	54.9	1,071	5.1%
Trousers, slacks & jeans	26.6	1,232	112.0	453	24.7
Suit type coats	39.0	68	7.0	33	9.1

(continued)

Current Strategies for Combating Imports (continued)

Effect of Major 807 Production Programs on Woven Fabric Consumption: 1986 (continued)

	Av. Sq. Yds. Per Doz.	Domestic Fabrics used Mils. sq. yds	807 Fabric Usage Mils. sq. yds	Fabrics used in Imports	807 Fabric usage as % of imports
Women's, girls' & infants' wear					
Dresses	42.0	713	13.0	237	5.4%
Blouses & shirts	23.0	1,091	72.0	1,458	4.9
Skirts	26.0	233	12.0	183	6.6
Slacks & shorts	27.0	805	74.0	902	8.2
Underwear	6.0	349	23.0	103	22.3
Pajama & other nightwear	24.0	402	19.0	90	21.1

Source(s): U.S. Department of Commerce: Current Industrial Report-Apparel Survey, 1987
"Av. Sq. Yds. Per Doz." estimates courtesy of (The) National Cotton Council: Cotton Counts Its Customers

The items listed above account for about 80% of the 807 yardage reported to have been shipped by domestic mills in 1986. Good results have been achieved in the case of men's trousers. However, men's and boys' shirts and women's blouses may be open to further expansion in 807 programs.

The second strategy against imports is the "Quick Response" program. The argument here is that a good point of attack is the long lead time required between placing orders offshore and getting deliveries, especially in the case of reorders. By establishing "quick response" facilities so that retailers get quick deliveries, it is reasoned, cash needed for inventories will be reduced and mark-downs minimized. The effect will result in a greater net return to the retailer. This argument probably applies best to styled merchandise which is produced in many colors or designs. Here, offshore exporters should be at a serious disadvantage. However, trade reports show that there is more talk about "quick response" than action. Comparatively few such programs are in operation.

The third strategy is to place emphasis on home textiles production. Import data shows that domestics, home furnishings fabrics and carpets have been less deeply penetrated by imports than apparel. Leading mills like Springs and West Point/Pepperell have shifted emphasis to this sector of the market.

U.S. Global Competitiveness

In December 1987, the United State International Trade Commission completed a study of the international competition between the leading exporting countries. The study made direct comparisons with competitive conditions in China, Japan, Taiwan, Hong Kong, the Republic of Korea and Italy. While the primary emphasis was on fabric exports, the apparel situation also received coverage.

U.S. Global Competitiveness (continued)

China is perceived to have the greatest potential for expansion. However, operating equipment is generally antiquated. Many old shuttle looms and ring spnidles remain in operation. The rate of modernization has been lower than that in other textile exporting countries. Productivity of labor is low but wage rates are less than 3% of the U.S. level. However, there is a great need for the Chinese to export textiles and strong efforts will be made to accomplish this.

Japan's situation is similar to that in the United States. Textile production has been declining as a percent of GNP. The Japanese have had to face competition from the low wage level countries. Moreover, the Japanese industrial planning organization, MITI, has instructed the industry to move away from commodity types of products to high margin items. Labor productivity in Japan is similar to that in the United States.

In Taiwan, textiles are no longer the main growth target, but still remain important in the economy. Growth continues steadily with textiles and apparel representing 19% of total exports. This is a lower percent than in the past and represents a change in emphasis.

Hong Kong is considered to have peaked as a supplier of textiles and apparel. Lack of space, a tight labor market and rising wages are all placing a cap on Hong Kong's ability to expand as a supplier of fabric and apparel. Hong Kong is expected to remain an important supplier of apparel, but not to grow.

Korea has become a major factor in the production and export of both textiles and apparel. Ranks among the world's ten largest textile industries in terms of export volume. Korea is also important as a synthetic fiber producer and spinner. Moreover, it has become a major producer of textile machinery and supplied 43% of the textile machinery in place in 1980.

Because of rising wage rates and world wide protectionism, growth of Korea as a supplier is not expected to continue at as high a rate as in the past. The tendency is to try to switch to higher "value added" products. Wage rates are growing at the same rate as in Taiwan and Hong Kong.

Italy is highly important as a fabric and apparel producer. Most of its exports go to other EEC countries. Of special interest and concern to the United States are novelty woolens. This industry is highly fragmented and concentrated in the Prato and Biella regions where there are innumerable small spinning plants, many employing as few as fifteen people. Most of these are family businesses, which produce novelty yarns from textile waste with some addition of virgin fiber. The industry prospers on the basis of flexibility, diversity of production and innovative style leadership. Italy is the 6th largest textile/apparel exporter in the world, coming just behind the Asian group.

FOREIGN TRADE

U.S. Global Competitiveness (continued)

Comparison of U.S. Wages and Productivity (U.S.=100)
Vs. Major Exporting Countries: Adjusted Labor Index: 1987
(Wages in $ per hour)

	Wages ($ per hour)	Productivity (U.S. =100)	Adjusted Labor Index*
Italy	$12.67	75	182
Japan	11.99	75	173
United States	9.24	100	100
Taiwan	2.09	45	51
Hong Kong	1.93	50	42
Korea	1.77	45	42

* The Adjusted Labor Index represents a combination of wage rates, modified by productivity levels, to show the true competitive situation between the major exporting countries and the United States in respect to textile mill production.

Source: U.S. Global Competitiveness:
The U.S. Textile Mill Industry (December, 1987)

MACHINERY & EQUIPMENT

Textile Machinery and Equipment

A major problem facing the U.S. textile industry is the fact that so much textile machinery is produced in Japan and in Europe. The U.S.I.T.C. study determined that 75% of the equipment employed in yarn production is imported; and 84% of the looms. Only in textile finishing does the U.S. remain a major supplier with 48% of the business.

Although the United States is the world's largest user of machinery & equipment, U.S. Textile Machinery producers have continued to lose ground as suppliers of such equipment.

For the world export market, the U.S. share of exports fell from 5.4% in 1984 to 4.8% in 1986. For more than twenty years, the U.S. has not been a major producer of yarn preparatory equipment, looms or knitting equipment. Nor has there been significant innovation in these areas. Sales of U.S. manufacturers are mainly confined to replacement parts. Since the machinery for which the parts are needed is rapidly becoming obsolete, sales of such parts are declining. This situation is evident in the Department of Commerce table which follows.

Textile Machinery and Equipment (continued)

The U.S. Textile Machinery Industry: 1985-1989

	1989(f)	1988(e)	1987	1986	1985(r)
Industry employment, total (000)	--	17.8	17.2	15.8	16.2
Production workers	--	12.1	11.7	10.7	10.9
Product shipments (mil. $)*					
Current $	--	1,232	1,126	1,039	909
Constant (1982$)	1,027	997	950	906	825
Value of imports (mil. $ cif)	1,771	1,476	1,116	910	663
Import/new supply ratio**	--	0.560	0.516	0.467	0.422
Value of exports (mil. $ fas)	443	386	332	276	232

(f) forecast
(e) estimated
* Value of machinery and equipment manufactured by all producers, regardless of industry classification.
**New supply is the sum of product shipments plus imports.
cif cost insurance, freight
fas free alongside ship

Source: U.S. Department of Commerce, International Trade Administration: 1989 U.S. Industrial Outlook

One area in which the U.S. machinery industry retains an important advantage is in finishing equipment and associated process controls, such as the ability to monitor color variations, temperature and the correct proportions of the various chemicals employed in the finishing processes. Materials handling equipment used in finishing plants is also an area in which the American industry has important advantages. The technology of finishing and its effective control is very important in textile processing. All of these systems depend heavily on computerized controls, an area in which the U.S. retains leadership.

Traditionally, the machinery investment in apparel manufacturing has been relatively small as compared with labor inputs, general overhead costs and the working capital which is tied up in apparel manufacturing for fabric, work in process and inventory. Here too, apparel manufacturing is on the brink of major changes.

MACHINERY & EQUIPMENT

Apparel Machinery and Equipment

In apparel manufacturing, production planning and innovation focuses on three related problems:

1. The need to develop the technology to support "quick response" programs.
2. Greater automation of manufacturing processes.
3. The need to reduce working capital requirements.

The traditional apparel manufacturing method involves bath processing. In the usual situation, a hundred or more layers of fabric are laid up on a cutting table and cut at one time. Then stacks of the cut fabric are moved from one location to another. Then batches of garments are finished at one time. In a typical men's tailored clothing factory, eight weeks may pass between cutting the fabric and the final production of the finished garment.

Today, the thinking is to try to produce a finished garment within hours. To accomplish this, one garment may be cut at a time, each part must follow a preplanned flow process by automatic means. To accomplish this, computerized controls and automated material handling are required. The situation is comparable to what took place in the computer industry after World War II. The industry moved from batch processing to "real time", where everything desired was accomplished in one quick process.

In the apparel industry, the cost of the capital equipment needed to move from batch processing to quick response is very high, but the payoff in labor saving, quick delivery and conservation of working capital are very great. It is this frontier which the apparel manufacturing industry is seeking to cross.

SCHEDULE OF ADDITIONAL FACT FILES

THE CHILDREN'S MARKET: INFANTS', TODDLERS', GIRLS' AND BOYS' (APPAREL, JUVENILE PRODUCTS, TOYS/DOLLS): Covers demographic trends affecting this market, including births, population projections by age, and characteristics of households with children. Includes detailed information on the U.S. children's wear industry, including production and shipments, foreign trade and price trends. Also covered are market trends for juvenile products (cribs, strollers, etc.) and for toys, games and dolls.

CONSUMER MARKET DEVELOPMENTS (1989 Edition): An overview of all facets of the consumer market. Within the framework of population and income groups, the markets for children's products, for young adults and for the mature are defined in terms of numbers and buying power. Trends and projections are inclued as well as an analysis of developments that are shaping the U.S. consumer market--living arrangements, households, working women, marriage and birth rates, etc. Trends in personal consumption expenditures are also covered.

DEPARTMENT STORE SALES (1989 Edition): Outlines ownership change/reorganizations in the past year affecting major department and specialty stores. Buying headquarter locations of stores are listed with information on sales and number of outlets included in this total. Notes are included on plans to open and/or close stores. Sales and outlet information is separately listed for corporate headquarter and for national chains.

DRESSES (WOMEN'S, MISSES' & JUNIORS'): At the manufacturer level, provides a statistical profile of the dress industry and the products made within this industry, including dresses, washable service apparel, ensembles, etc. Includes number and size of manufacturers, production, and value of shipments, industry location and trends in employment levels. Analyzed is the governing impact of imports on total U.S. market supply. Reatil sales by major type of retail outlet are covered, as well as growth in the size of the consumer market, based on population counts, working women by type of occupation, and more.

FASHION ACCESSORIES (MEN'S AND WOMEN'S): Covers developments in the U.S. industry, in imports and in retail sales for fashion accessories, including small leather goods, handbags, millinery, scarves, gloves, belts, jewelry, sunglasses, watches, etc., to the extent that statistical information is available. Included are production and shipments by U.S. manufacturers plus the quantity and value of imports in recent periods. Retail sales and operating results in department and specialty stores are reported, as well as summaries of available studies on consumer buying preferences.

FOOTWEAR (MEN'S, WOMEN'S, BOYS', GIRLS') (A 1989 Edition): A statistical summary of the U.S. footwear industry and U.S. market. Covers domestic production and shipments, and details trends in imports and their share of the domestic market, with information on major types of footwear. Includes information on sales trends and operating/merchandising results for shoe departments.

HOME TEXTILES & RELATED PRODUCTS: Includes the latest statistics on the U.S. industry, including manufacturers of a wide variety of products--bed linens, towels, blankets, comforters, slip covers, pillows, curtains/ draperies and hardware, shades and blinds. Covers the changing competitive nature of the industry through acquisitions of major producers and through consolidation of buying power at the retail level. Includes information on production, shipments and retail sales.

HOSIERY/LEGWEAR/BODYWEAR (MEN'S, WOMEN'S, BOYS' GIRLS'): A comprehensive report on mills making hosiery and related products, including production and shipments, fiber consumption, producer price trends. The growing trend in imports is also covered. At the consumer level, the size of the potential market is measured in terms of population counts and projections and estimates are included on retail sales of major products by type of retail outlet.

HOUSEHOLD APPLIANCES, ELECTRIC HOUSEWARES: Covers a broad range of products included in these two classifications at the manufacturer and at the retail level. Provides a statistical profile of the U.S. industry in terms of number of manufacturers, production, shipments, exports. Imports are detailed, as well as information on export markets. Covers retail sales and merchandising results and information on appliance/radio/TV stores.

HOUSEHOLD FURNITURE AND BEDDING: Provides an overall view of market trends in the U.S. For the U.S. industry, the report covers statistics on manufacturers, on production and shipments in terms of quantity and value by type of furniture. Trends in the concentration levels in the U.S. industry are reported, as well as in employment and earnings in the industry. Also included is information on the industry in leading states. Consumer market information includes data on characteristics of new housing units (number of rooms); also trends in consumer expenditures for furniture, sales by type of outlet. Details on furniture stores, including the 25 leaders, are also covered.

MEN'S CLOTHING AND FURNISHINGS: Provides a summary of major market trends in the men's furnishings/work/career apparel area and the tailored clothing areas, as well as in the rainwear area. Covers production and shipment information, employment trends, manufacturer concentration levels, location of the industries. Also examines import/export material. There's a look at the consumer market, plus in-depth details covering the retail level including sales and operating results for men's furnishings/work,/career apparel/and tailored wear in both department and men's wear stores.

MEN'S SPORTSWEAR, CASUAL WEAR, OUTERWEAR: The wide variety of men's wear items included are covered from available statistical information on the industry at the manufacturer, retailer and consumer levels. Included is information on production and shipments by domestic producers, imports and exports. The retail market is covered in sales estimates and data on major outlet types, as well as studies of consumer buying practices.

THE SPORTS/FITNESS/LEISURE MARKETS: Covers details on U.S. manufacturers in the sporting goods/athletic goods industry, concentrating on products sold through retail outlets such as sporting goods stores and general merchandise stores, as well as functional athletic footwear and apparel. Includes quantity and value of shipments of specified products, concentration of shipments among leading manufacturers, and trends in producer prices. Imports of specified sporting and athletic goods are covered. At the consumer level, data includes statistics and sports participation levels and purchases of specific sports equipment. Also buying habits in relation to activewear and sports equipment.

SPORTSWEAR, CASUAL WEAR, SEPARATES (WOMEN'S, MISSES' AND JUNIORS'): A statistical view of this segment of the women's wear industry is provided, including data on production and value of shipments, imports of major categories, sales by type of outlet, seasonal patterns, and consumer buying habits.

THE TEXTILE/APPAREL INDUSTRIES: Provides an overview of the U.S. textile and apparel industries, their current problems and programs to improve their competitive position in the U.S. market and abroad. Covers a statistical profile of each industry in terms of number of manufacturers, concentration levels, production and shipments, including exports. Trends in imports in terms of quantity and value are detailed, as well as quota developments. Also included is information on plant and equipment expenditures and on mill machinery in place in U.S. mills.

TOILETRIES, COSMETICS, FRAGRANCES AND BEAUTY AIDS: A detailed view of the U.S. industry, leading manufacturers, sales of products for both men and women, trends in industry employment and earnings, advertising expenditures and foreign trade. Consumer expenditures by product are detailed as well as retail sales by outlet type, and consumer buying patterns and usage in regard to specified products.

WOMEN'S INNER FASHIONS: NIGHTWEAR, DAYWEAR AND LOUNGEWEAR: An analysis of statistical information available on the industry and market, from manufacturer through to consumer. Includes the latest available data on U.S. production, shipments and exports; and details on imports. Retail sales and operating results in department and specialty stores are covered, as well as trends in producer and consumer prices. Developments in the size of the consumer market and trends in the market are summarized.

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